

## TITLE V OPERATING PERMIT

Issued pursuant to Title 22a of the Connecticut General Statutes (CGS) and Section 22a-174-33 of the Regulations of Connecticut State Agencies (RCSA) and pursuant to the Code of Federal Regulations (CFR), Title 40, Part 70.

| Title V Permit Number                   | 117–0265-TV         |
|---|---------------------|
| Client/ Sequence /Town/Premises Numbers | 139 / 4 / 117 / 551 |
| Date Issued                             | July 17, 2003       |
| Date Modified                           | May 20, 2006        |
| Expiration Date                         | July 17, 2008       |

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**PSEG Power Connecticut LLC** 

**Premises Location:** 

1 Waterfront Street, New Haven, Connecticut 06512

Name of Responsible Official and Title:

Robert Parnell, Director of Asset Operations

All the following attached pages, 2 through 47, are hereby incorporated by reference into this Title V Operating Permit.

GINA MCCARTHY
Gina McCarthy
Commissioner

5/20/06 Date

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#### TITLE V OPERATING PERMIT

All conditions in Sections III, IV, V, VII and VIII of this permit are enforceable by both the Administrator and the Commissioner unless otherwise specified. Applicable requirements and compliance demonstration are set forth in Section III and IV of this permit. The Administrator or any citizen of the United States may bring an action to enforce all permit terms, conditions or requirements contained in Sections III, IV, V, VII and VIII of this permit in accordance with the Clean Air Act (CAA), as amended.

#### LIST OF ACRONYMS

#### ACRONYM

#### DESCRIPTION

AOS Alternative Operating Scenario

BDERC Budget Discrete Emission Reduction Credit

CAA Clean Air Act

CEM Continuous Emission Monitor
CFR Code of Federal Regulations
CGS Connecticut General Statutes

CO Carbon Monoxide CO<sub>2</sub> Carbon Dioxide

CP/OP Construction Permit/Operating Permit
DEP Department of Environmental Protection
DERC Discrete Emission Reduction Credits

EMU Emission Unit

ERC Emission Reduction Credit
FLER Full Load Emission Rate
gal/hr Gallons per Hour
HAP Hazardous Air Pollutant

lbs/MMBTUPounds per Million British Thermal UnitsMMBTU/hrMillion British Thermal Units per Hour

MMcft/hr Million Cubic Feet per Hour NHHS New Haven Harbor Station

NO<sub>x</sub> Nitrogen Oxides
NSR New Source Review

Pb Lead

PM-10 Particulate Matter less than 10 microns PSEG PSEG Power Connecticut, LLC

RACT Reasonably Available Control Technology RCSA Regulations of Connecticut State Agencies

SIP State Implementation Plan

 $SO_2$  Sulfur Dioxide  $SO_x$  Sulfur Dioxides

SOS Standard Operating Scenario

T IV Title IV
TV Title V
TPY Tons per Year

TSP Total Suspended Particles
VOC Volatile Organic Compound
UI The United Illuminating Company

#### **Section I: Premises Information/Description**

#### A. PREMISES INFORMATION

Nature of Business: Electricity Generation for Wholesale Sale

Primary SIC: 4911 Other SIC: None

Facility Mailing Address: 1 Waterfront Street, New Haven, CT 06512

Telephone Number: (203) 974-5055 (S. Kruse)

#### **B. PREMISES DESCRIPTION**

PSEG Power Connecticut LLC, (PSEG) is an exempt wholesale electric generating company with its principal place of business in Newark, New Jersey. On April 16, 1999, Wisvest-Connecticut, LLC (Wisvest) purchased two fossil fuel-fired electric generating facilities from the United Illuminating Company (UI), one of which is the New Haven Harbor Station (NHHS). NHHS is located at 1 Waterfront Street, New Haven. NHHS has been in operation as an electricity generation station since August 1975. The property on which NHHS was constructed was acquired by UI and Northeast Utilities in the late 1950's. In 1973, UI purchased the property from Northeast Utilities. Prior to the acquisition, the property was owned by the Connecticut Coke Company from 1918. On December 6, 2002, PSEG Fossil LLC purchased the membership interests in Wisvest and changed the name to PSEG Power Connecticut LLC. All Bureau of Air Management permits for NHHS were transferred to PSEG.

The facility encompasses approximately 43 acres of land on the eastern edge of New Haven Harbor. The property includes a marine bulk loading and unloading facility, two above ground petroleum storage tanks (each with approximately 13.6 million gallons of storage capacity), and the power generating station. A wastewater treatment plant is located in the southern portion of the property, near the tank farm. This facility includes a wastewater treatment building (the Lagoon House) with pumps, chemicals, sampling equipment, three treatment lagoons, and a percolation lagoon through which treated wastewater is discharged to the New Haven Harbor.

Electricity is generated at the facility through one tangentially-fired boiler currently rated at approximately 466 megawatts of electricity (net output). This boiler has the dual capacity to burn No. 6 and No. 2 fuel oil and/or natural gas. The No. 6 fuel oil for the boiler is stored in the above-ground storage tanks which are located on the southeast corner of the property in a diked containment area (tank farm). The No. 2 fuel oil is stored in a 30,000 gallon double walled, fiberglass reinforced plastic underground storage tank that is located north of the main building. An underground pipeline that enters the facility from the east supplies natural gas to the boiler.

Table 1 below shows the major-emitting units at this facility.

#### Table 1

| Emissions Unit | <u>Equipment</u>                                 |
|----------------|--|
| EMU1           | 4,286 MMBTU/hr boiler                            |
| EMU2           | 143.4 MMBTU/hr boiler                            |
| EMU3           | 40 gal/hr distillate fuel generator              |
| EMU4           | 1.8 MMBTU/hr diesel fire pump engine             |
| EMU5&6         | Fuel oil storage tanks – 13,650,000 gallons each |

#### **Section I: Premises Information/Description**

#### **B. PREMISES DESCRIPTION, continued**

The facility has a maintenance department that performs most of the maintenance work on-site. The maintenance department uses paints and performs repair work. Some maintenance projects include sandblasting, which results in sandblasted grit with metal bearing paint chips. In addition, there is a parts washer which uses an aqueous detergent for cleaning and degreasing parts.

PSEG is subject to NO<sub>x</sub> Reasonably Available Control Technology (RACT), in accordance with the Regulations of Connecticut State Agencies (RCSA) Section 22a-174-22, Control of Nitrogen Oxides Emissions. The facility performed stack tests for EMU1 and EMU2 burning both No. 2 and No. 6 fuel oil. Stack tests for EMU2 burning No. 6 fuel oil yielded a NO<sub>x</sub> emission level in excess of the regulatory threshold. In order to achieve NO<sub>x</sub> compliance for EMU2, PSEG has entered into a Trading Agreement and Order No. 8243 with the Department of Environmental Protection (Department) to utilize Discrete Emission Reduction Credits (DERCs).

In December 1994, UI installed waterwall lances on EMU1 thereby reducing its NO<sub>x</sub> emission rates below permitted, allowed and actual 1990 emission rates. In the fall of the 2001, the facility installed low NO<sub>x</sub> burners, further reducing NO<sub>x</sub> emissions. Connecticut Trading Agreement and Order No. 8240 allows PSEG to obtain approval of actual reductions in NO<sub>x</sub> emissions for use as DERCs, on and after April 16, 1999, by operating EMU1 below the emission limits given in RCSA Section 22a-174-22(e). DERCs generated by PSEG shall be created in accordance with Trading Agreement and Order No. 8240, and shall remain valid until they are used or until May 1, 2007, whichever comes first, or by such later date as the Commissioner may approve in writing. If DERCs are created through the ozone season May 1 through September 30 in any calendar year, PSEG may obtain approval for such reductions for use as Budget Discrete Emission Reduction Credits (BDERCs).

The Commissioner authorized PSEG to receive, store, and blend fuel oil with greater than 1% sulfur by dry weight in non-operational use tanks in accordance with RCSA Section 22a-174-19(a)(4)(iii)(E). PSEG must designate one operational tank at all times to store fuel with 1% sulfur by dry weight or less to supply its own generating units.

Pursuant to the authorization, PSEG shall not dispense, under any circumstances, any fuel with greater than 1% sulfur content by weight (dry basis) or any non-conforming fuel from any tank for distribution to a fuel user in Connecticut. Any fuel with greater than 1% sulfur weight (dry basis) at the facility shall only be transferred to sites outside of Connecticut, and never transferred to any site in Connecticut with the exception of subsidiaries of PSEG Fossil LLC doing business in Connecticut. This authorization has been incorporated into this Title V Operating Permit as an enforceable permit condition.

## **Section II: Emissions Units Information**

## A. EMISSIONS UNITS DESCRIPTION

Emissions units are set forth in Table II.A.1.

| TABLE II.A         | TABLE II.A.1: EMISSIONS UNITS DESCRIPTION                            |   |  |  |  |  |  |
|--------------------|--|---|--|--|--|--|--|
| Emissions<br>Units | Emissions Units Description  | Size Rating/<br>Design Capacity               | Control Unit Description   | Monitoring Unit<br>Description   | Permit, Order, or Registration<br>Number*  |  |  |
| EMU1               | Main Steam Generator, NHHS #1  | 4,286 MMBTU/hr<br>Maximum Gross<br>Heat Input | <ul> <li>Electrostatic Precipitator</li> <li>Overfire Air</li> <li>Flue Gas Recirculation</li> <li>Waterwall Lances</li> <li>Low NO<sub>x</sub> Burners</li> </ul> | Continuous monitoring of fuel flow, SO <sub>2</sub> , NOx, CO <sub>2</sub> and opacity | <ul> <li>CP/OP No. 117–0031</li> <li>Connecticut Trading<br/>Agreement and Order No.<br/>8240</li> </ul> |  |  |
| EMU2               | Auxiliary Steam Generator  | 143.4 MMBTU/hr                                | None   | Continuous monitoring of fuel flow   | <ul> <li>CP/OP No. 117-0021</li> <li>Connecticut Trading<br/>Agreement and Order No.<br/>8243</li> </ul> |  |  |
| EMU3               | Emergency Generator<br>Solar "Spartan" Model No.GS350<br>Gas Turbine | 40 gal/hr Distillate<br>fuel                  | None   | None   | None   |  |  |
| EMU4               | Diesel Fired Pump Engine Avco Lycoming                               | 1.8 MMBTU/hr                                  | None   | None   | None   |  |  |

<sup>(\*)</sup> It is not intended to incorporate by reference these NSR Permits, Orders, or Registrations into this Title V Operating Permit.

## **Section II: Emissions Units Information**

The permittee shall be allowed to operate under the following scenarios without notifying the Commissioner, provided that such operations are explicitly provided for and described in the Table II.A.2 below. The permittee shall record contemporaneously, the operating scenario under which each emissions unit is operating in a log to be kept at the premises. Emissions units not listed in an alternative operating scenarios operate the same as described in the standard operating scenario.

| TABLE II.A.2: EMISSIONS UNIT IDENTIFICATION - SOS AND AOS |   |  |  |  |
|---|---|--|--|--|
| Identification of Operating Scenarios                     | Emissions Units Associated with the Scenarios | Description of Scenarios   |  |  |
| SOS   | EMU1, EMU2, EMU3,<br>EMU4, EMU5, and<br>EMU6  | EMU1 burns residual fuel oil with a sulfur content less than or equal to 1% by weight (dry basis) and/or natural gas and/or burns No. 2 fuel oil. The electrostatic precipitator controls the particulate emissions. |  |  |
|   |   | EMU2 operates on No. 2 fuel oil and uses propane igniters. The unit is not used for producing power for sale, rather it is used to provide auxiliary steam for station use.  EMU3 operates on distillate fuel.       |  |  |
|   |   | EMU4 operates on diesel fuel.  |  |  |
|   |   | EMU5 and EMU6 store fuels as specified in Table II.A.1   |  |  |
| AOS   | EMU1, EMU2                                    | EMU1 burns residual fuel oil with a sulfur content less than or equal to 1.3% by weight (dry basis) whenever the firing rate of natural gas exceeds 25% of total heat input and/or burns No. 2 fuel oil.             |  |  |
|   |   | EMU2 operates on residual fuel and uses propane igniters.  |  |  |

The following tables contain summaries of applicable regulations and permit requirements for identified Emissions Units for the Standard and Alternative Operating Scenarios regulated by this Title V Operating Permit.

## A. EMISSIONS UNIT 1 - Main Steam Generator NHHS #1

| Table III.A: APP                        | Table III.A: APPLICABLE REQUIREMENTS - EMISSIONS UNIT 1 (Main Steam Generator NHHS #1) |  |   |  |  |
|---|--|--|---|--|--|
| Operating<br>Scenario<br>Identification | Pollutant or<br>Process<br>Parameter   | Limitations or Restrictions  | Applicable Regulatory<br>Reference/Citation                               |  |  |
| SOS, AOS                                | Opacity  | <ul> <li>1.i. Except during a period of startup, shutdown or malfunction; Commissioner-approved stack testing; or intentional sootblowing, fuel switching or sudden load changing done in accordance with good engineering practices, the permittee shall not exceed following visible emissions limits:</li> <li>a. Twenty percent (20%) opacity during any six-minute block average; or.</li> <li>b. Forty percent (40%) opacity during any one-minute block average.</li> </ul> | 1.i. RCSA Section 22a-174-18(a)(2)(A)<br>RCSA Section 22a-174-18(a)(2)(B) |  |  |
|   |  | <b>1.ii.</b> The period of exception from the visible emissions standards during a period of startup, shutdown or malfunction; Commissioner-approved stack testing; or intentional sootblowing, fuel switching or sudden load changing done in accordance with good engineering practices, the permittee shall not exceed one-half of one percent (0.5%) of the total operating hours of such stationary source during any calendar quarter.                                       | <b>1.ii.</b> RCSA Section 22a-174-18(j)(1)(B)                             |  |  |
|   |  | 1.iii. The permittee shall not cause or allow visible emissions in excess of sixty percent (60%) opacity during any six-minute block average of the period of exception from the visible emissions standards during a period of startup, shutdown or malfunction; Commissioner-approved stack testing; or intentional sootblowing, fuel switching or sudden load changing done in accordance with good engineering practices.  | <b>1.iii.</b> RCSA Section 22a-174-18(j)(1)(B)                            |  |  |

| Table III.A: APP                        | Table III.A: APPLICABLE REQUIREMENTS - EMISSIONS UNIT 1 (Main Steam Generator NHHS #1), continued |   |   |  |  |  |
|---|---|---|---|--|--|--|
| Operating<br>Scenario<br>Identification | Pollutant or<br>Process<br>Parameter  | Limitations or Restrictions   | Applicable Regulatory<br>Reference/Citation   |  |  |  |
| SOS, AOS                                | PM-10   | <ol> <li>2.i. The PM-10 emissions shall not exceed 0.061 lbs/MMBTU of heat input when operating on residual oil.</li> <li>2.ii. The PM-10 emissions shall not exceed 1,139.27 TPY when operating on residual oil.</li> <li>2.iii. The PM-10 emissions shall not exceed 0.003 lbs/MMBTU of heat input when operating on natural gas.</li> <li>2.iv. The PM-10 emissions shall not exceed 24.362 TPY when operating on natural gas.</li> <li>2.v. The combined PM-10 emissions from burning natural gas, No. 2 and residual oils shall not exceed 1,139.27 TPY.</li> </ol>  | <ol> <li>2.ii. CP/OP No. 117-0031</li> <li>2.iii. CP/OP No. 117-0031</li> <li>2.iii. CP/OP No. 117-0031</li> <li>2.iv. CP/OP No. 117-0031</li> <li>2.v. CP/OP No. 117-0031</li> </ol> |  |  |  |
| SOS, AOS                                | SO <sub>x</sub>   | <ul> <li>3.i. The SO<sub>x</sub> emissions shall not exceed 1.1 lbs/MMBTU of heat input when operating on residual oil.</li> <li>3.ii. The SO<sub>x</sub> emissions shall not exceed 20,508.21 TPY when operating on residual oil.</li> <li>3.iii. The SO<sub>x</sub> emissions shall not exceed 0.0006 lbs/MMBTU of heat input when operating on natural gas.</li> <li>3.iv. The SO<sub>x</sub> emissions shall not exceed 4.872 TPY when operating on natural gas.</li> <li>3.v. The SO<sub>x</sub> emissions shall not exceed 1.1 lbs/MMBTU of heat input when operating on residual oil (1.3% sulfur by weight) while simultaneously firing natural gas.</li> <li>3.vi. The combined SO<sub>x</sub> emissions from burning natural gas, No. 2 and residual fuel oils shall not exceed 20,508.21 TPY.</li> </ul> | <b>3.i.</b> CP/OP No.117-0031 <b>3.ii.</b> CP/OP No.117-0031  |  |  |  |

| Operating<br>Scenario<br>Identification | Pollutant or<br>Process<br>Parameter | Limitations or Restrictions   | Applicable Regulatory<br>Reference/Citation |
|---|--------------------------------------|---|---|
| SOS, AOS                                | SO <sub>x</sub> , continued          | <ul> <li>3. vii. Except as authorized in writing by the Commissioner in accordance with RCSA Section 22a-174-19a or the Connecticut General Statutes, on and after January 1, 2003, this emissions unit shall comply with one of the following sulfur dioxide emissions standards: (i) the sulfur content of the residual oil shall be equal to or less than 0.3% sulfur, by weight (dry basis); (ii) the average SO<sub>2</sub> emissions rate shall be equal to or less than 0.33 pounds SO<sub>2</sub> per MMBTU for each calendar quarter; (iii) the average emissions rate shall be equal to or less than 0.3 pounds SO<sub>2</sub> per MMBTU calculated for each calendar quarter, if the permittee averages the emissions from two or more emissions units at the premises; or (iv) the average SO<sub>2</sub> emissions rate shall be equal to or less than 0.3 pounds SO<sub>2</sub> per MMBTU calculated for each calendar quarter if the permittee uses emissions reduction trading under RCSA Section 22a-174-19a(h) as long as the emissions unit combusts fuel with a sulfur content of 0.5% sulfur by weight or less (dry basis) or meets an actual quarterly average emission rate that does not exceed 0.55 pounds SO<sub>2</sub> per MMBTU.</li> <li>3.viii. No later than the following March 1, for each calendar year commencing January 1, 2002, the permittee shall retire one SO<sub>2</sub> allowance, rounded up to the next whole ton, for each ton of SO<sub>2</sub> emitted in the state of Connecticut. This requirement is in addition to any other requirements imposed on the owner or operator of a Title IV source by the Administrator under 40 CFR Parts 72 and 73.</li> <li>3.ix. The permittee of an affected unit shall retire the necessary amount of SO<sub>2</sub> allowances by requesting that the Administrator transfer such allowances to the Connecticut State SO<sub>2</sub> Retirement Account established by the Commissioner pursuant to 40 CFR 73.31 and administered by the federal Environmental Protection Agency under the provisions of 40 CFR parts 72 and 73. The transfer of SO<sub>2</sub> allowances in accordance</li> </ul> | 3.viii. RCSA Section 22a-174-19a(d)(1)      |
|   |                                      | with the provisions of this subdivision shall occur by March 1 for emissions occurring in the previous calendar year.  3.x. Any SO <sub>2</sub> allowance retired in accordance with the provisions of this subsection shall be an allowance originally issued by the Administrator to a Title IV source located in the state of Connecticut or in any affected state.  | <b>3.x.</b> RCSA Section 22a-174-19a(d)(1)  |

| Operating<br>Scenario<br>Identification | Pollutant or<br>Process<br>Parameter | Limitations or Restrictions   | Applicable Regulatory<br>Reference/Citation   |
|---|--------------------------------------|---|---|
| SOS, AOS                                | VOC                                  | <ul> <li>4.i. The VOC emissions shall not exceed 0.008lbs/MMBTU of heat input when operating on residual oil.</li> <li>4.ii. The VOC emissions shall not exceed 149.16 TPY when operating on residual oil.</li> <li>4.iii. The VOC emissions shall not exceed 0.0015 lbs/MMBTU of heat input when operating on natural gas.</li> <li>4.iv. The VOC emissions shall not exceed 12.181 TPY when operating on natural gas.</li> <li>4.v. The combined VOC emissions from burning natural gas, No. 2 and residual oil shall not exceed 149.16 TPY.</li> </ul> | <ul> <li>4.i. CP/OP No. 117-0031</li> <li>4.ii. CP/OP No. 117-0031</li> <li>4.iii. CP/OP No. 117-0031</li> <li>4.iv. CP/OP No. 117-0031</li> <li>4.v. CP/OP No. 117-0031</li> </ul> |
| SOS, AOS                                | СО                                   | <ul> <li>5.i. The CO emissions shall not exceed 0.035 lbs/MMBTU of heat input when operating on residual oil.</li> <li>5.ii. The CO emissions shall not exceed 652.50 TPY when operating on residual oil.</li> <li>5.iii. The CO emissions shall not exceed 0.040 lbs/MMBTU of heat input when operating on natural gas.</li> <li>5.iv. The CO emissions shall not exceed 324.82 TPY when operating on natural gas.</li> <li>5.v. The combined CO emissions from burning natural gas, No. 2 and residual oils shall not exceed 693.15 TPY.</li> </ul>     | 5.ii. CP/OP No. 117-0031<br>5.ii. CP/OP No. 117-0031<br>5.iii. CP/OP No. 117-0031<br>5.iv. CP/OP No. 117-0031<br>5.v. CP/OP No. 117-0031  |
| SOS, AOS                                | Pb                                   | <ul> <li>6.i. The Pb emissions shall not exceed 0.0001 lbs/MMBTU of heat input when operating on residual oil.</li> <li>6.ii. The Pb emissions shall not exceed 2.145 TPY when operating on residual oil.</li> <li>6.iii. The combined Pb emissions from burning natural gas, No. 2 and residual oils shall not exceed 2.145 TPY.</li> </ul>  | <ul><li>6.i. CP/OP No. 117-0031</li><li>6.ii. CP/OP No. 117-0031</li><li>6.iii. CP/OP No. 117-0031</li></ul>  |

| Table III.A: APP                        | Table III.A: APPLICABLE REQUIREMENTS - EMISSIONS UNIT 1 (Main Steam Generator NHHS #1), continued |   |  |  |  |
|---|---|---|--|--|--|
| Operating<br>Scenario<br>Identification | Pollutant or<br>Process<br>Parameter  | Limitations or Restrictions   | Applicable Regulatory<br>Reference/Citation  |  |  |
| SOS, AOS                                |   | <ul> <li>7.i. The NO<sub>x</sub> emissions shall not exceed 0.250 lbs/MMBTU of heat input when operating on No. 6 fuel oil (24-hour averaging time).</li> <li>7.ii. The NO<sub>x</sub> emissions shall not exceed 4,661.03 TPY when operating on residual oil.</li> <li>7.iii. The NO<sub>x</sub> emissions shall not exceed 0.200 lbs/MMBTU of heat input when operating on natural gas (24-hour averaging time).</li> <li>7.iv. The NO<sub>x</sub> emissions shall not exceed 1,624.1 TPY when operating on natural gas.</li> <li>7.v. When operating on residual fuel oil (less than or equal to 1.3% sulfur by weight) while simultaneously firing natural gas, the NO<sub>x</sub> emissions limitation shall be determined by (1) multiplying the heat input of each fuel combusted by the applicable emission limitation in Sections III.A.7.i and 7.iii above, (2) summing those products, and (3) dividing the sum by the total heat input.</li> <li>7.vi. The combined NO<sub>x</sub> emissions from burning natural gas, No. 2 and residual oils shall not exceed 4,672.15 TPY.</li> <li>7.vii. The NO<sub>x</sub> emissions shall not exceed 0.17 lbs/MMBTU of heat input when operating on No. 2 fuel oil (24-hour averaging time).</li> <li>7.viii. The NO<sub>x</sub> emissions shall not exceed 0.200 lbs/MMBTU of heat input when operating on natural gas (24-hour averaging time).</li> </ul> | <ul> <li>7.i. CP/OP No. 117-0031;<br/>Connecticut Trading<br/>Agreement and Order No.<br/>8240; and RCSA Section<br/>22a-174-22(e)</li> <li>7.ii. CP/OP No. 117-0031</li> <li>7.iii. CP/OP No. 117-0031;<br/>Connecticut Trading<br/>Agreement and Order No.<br/>8240; and RCSA Section<br/>22a-174-22(e)</li> <li>7.iv. CP/OP No. 117-0031</li> <li>7.v. RCSA Section 22a-174-<br/>22(f)(2)(A)</li> <li>7.vi. CP/OP No. 117-0031</li> <li>7.vii. CP/OP No. 117-0031</li> <li>7.viii CP/OP No. 117-0031</li> </ul> |  |  |
| SOS, AOS                                | Emission<br>Reduction<br>Credits<br>(DERCs)   | <ul> <li>8.i. The permittee and approved sources within Connecticut shall be allowed to use non-ozone season NO<sub>x</sub> DERCs for purposes of compliance under RCSA Section 22a-174-22(d)(3), to achieve a portion of the nitrogen oxide emission reductions and/or emission offsets for new sources for compliance with the requirements of RCSA Section 22a-174-3(l).</li> <li>8.ii. Approved DERCs shall be acquired for compliance with the emission limitations given in Section III.A.7.i through Section III.A.7.iii of this permit until the permittee achieves permanent compliance for the unit with the emission limitations in Section III.A.7 of this permit or until May 1, 2007, or such later date as the Commissioner may approve in writing, whichever occurs first.</li> <li>8.iii. The permittee shall have in its possession approved DERCs and shall document and record the amounts of all fuels and DERCs used by the boiler each month.</li> </ul>   | <ul> <li>8.i. Connecticut Trading</li></ul>  |  |  |

| Table III.A: APPLICA | Table III.A: APPLICABLE REQUIREMENTS - EMISSIONS UNIT 1 (Main Steam Generator NHHS #1), continued |  |  |  |  |
|----------------------|---|--|--|--|--|
| Scenario             | ollutant or<br>Process<br>Parameter   | Limitations or Restrictions  | Applicable Regulatory<br>Reference/Citation  |  |  |
| En<br>Re<br>Cr       | mission<br>eduction<br>redits<br>DERCs)   | <ul> <li>8.iv. For generating DERCs from the unit, the permittee shall use the appropriate baseline emission rates of 0.25 lbs/MMBTU of heat input when operating on No. 6 fuel oil, 0.17 lbs/MMBTU of heat input when operating on No. 2 fuel oil, 0.20 lbs/MMBTU of heat input when operating on natural gas or use the proportioned baseline emission rate set forth in Section IV.A.1.viii.b of this permit, when simultaneously operating on more than one fuel. The permittee shall use the above referenced baseline emission rate(s) when calculating the proportioned baseline emission rate.</li> <li>8.v. In order to consider CEM-recorded NO<sub>x</sub> emission rates valid for DERC approval, all NO<sub>x</sub> and CO<sub>2</sub>/O<sub>2</sub> CEMs shall comply with 40 CFR Part 75.</li> <li>8.vi. An additional 10% of all DERCs (tons) generated by the boiler shall be retired by the facility and permanently removed from all calculations on a non-ozone season basis to assure a benefit to the environment.</li> <li>8.vii. The 10% uncertainty discount due to not having data from an official EPA Method 7-E stack test or CEM data while operating on No. 2 fuel and/or natural gas shall be incorporated into the proportioned baseline emission rate whenever the boiler is operating on No. 2 fuel oil and/or natural gas as referenced in Section IV.A.viii.b and shall be retired by the facility and permanently removed from all calculations on a daily or monthly basis.</li> <li>8.viii. The permittee shall use 0.15 lbs/MMBTU of heat input when operating on No. 6 fuel oil, No. 2 fuel oil and/or natural gas as the non-ozone season baseline emission rate for the boiler.</li> <li>8.ix. Starting on October 1, 2003, and during the period from October 1 through April 30, inclusive, each year until May 1, 2007, the permittee may only obtain approval of actual reductions in NO<sub>x</sub> emissions, generated by operating the boiler at a rate which is below 0.15 lbs/MMBTU during the non-ozone season No<sub>x</sub> DERCs generated by the permittee shall be created and approved in accordance with Trading Agree</li></ul> | Agreement and Order No. 8240<br>8.vii. Connecticut Trading<br>Agreement and Order No. 8240 |  |  |

| Operating<br>Scenario<br>Identification | Pollutant or<br>Process<br>Parameter                    | Limitations or Restrictions  | Applicable Regulatory<br>Reference/Citation   |
|---|---|--|---|
| SOS, AOS                                | NOx Budget Discrete Emissior Reduction Credits (BDERCs) | 5  | <ul> <li>9.i. Connecticut Trading Agreement and Order No. 8240</li> <li>9.ii. Connecticut Trading Agreement and Order No. 8240</li> <li>9.iii. Connecticut Trading Agreement and Order No. 8240</li> <li>9.iv. Connecticut Trading Agreement and Order No. 8240</li> <li>9.v. Connecticut Trading Agreement and Order No. 8240</li> <li>9.vi. Connecticut Trading Agreement and Order No. 8240</li> <li>9.vi. Connecticut Trading Agreement and Order No. 8240</li> </ul> |
| SOS, AOS                                | No. 2 fuel oil<br>(0.3% sulfur by<br>weight)            | <ul> <li>10.i. The firing rate of residual fuel oil shall not exceed 29,700 gal/hr.</li> <li>10. ii. The combined annual fuel usage for both No. 2 and residual fuel oil shall not exceed 258,390,000 gal/yr.</li> <li>10.iii. The sulfur content of the No. 2 fuel oil shall not exceed 0.3 % by weight (dry basis).</li> </ul>   | <ul><li>10.i. CP/OP No. 117-0031</li><li>10.ii. CP/OP No. 117-0031</li><li>10.iii. CGS Section 16a-21a</li></ul>  |
| SOS, AOS                                | Residual fuel oil<br>(1.0% sulfur by<br>weight)         | <ul> <li>11.i. The firing rate of residual fuel oil shall not exceed 29,700 gal/hr.</li> <li>11.ii. The combined annual fuel usage for both No. 2 and residual fuel oil shall not exceed 258,390,000 gal/yr.</li> <li>11.iii. The sulfur content of the residual fuel oil shall not exceed 1.0 % by weight (dry basis).</li> </ul> | <b>11.i.</b> CP/OP No. 117-0031<br><b>11.ii.</b> CP/OP No. 117-0031<br><b>11.iii.</b> RCSA Section 22a-174-19(a)(2)(i)  |
| SOS, AOS                                | Natural Gas   | 12. The annual fuel usage of natural gas shall not exceed 15,768 MMcft/yr.   | <b>12.</b> CP/OP No. 117-0031   |
| AOS                                     | Residual fuel oil<br>(1.3% sulfur by<br>weight)         | <ul> <li>13.i. EMU1 is allowed to burn up to 1.3% sulfur fuel oil whenever the firing rate of natural gas exceeds 25% of the unit's total heat input.</li> <li>13.ii. The annual fuel oil usage shall not exceed 258,390,000 gal/yr.</li> </ul>  | <b>13.i.</b> CP/OP No. 117-0031 <b>13.ii.</b> CP/OP No. 117-0031  |

## **B.** EMISSIONS UNIT 2 - Auxiliary Steam Generator

| Table III.B: APPLICABLE REQUIREMENTS - EMISSIONS UNIT 2 (Auxiliary Steam Generator) |  |   |   |  |
|---|--|---|---|--|
| Operating<br>Scenarios<br>Identification  | Pollutants or<br>Process<br>Parameters | Limitations or Restrictions   | Applicable Regulatory References/Citations  |  |
| SOS, AOS  | Opacity                                | <ol> <li>The opacity shall not exceed the following visible emissions limits:</li> <li>a. Twenty percent (20%) opacity during any six-minute block average as measured by 40 CFR 60, Appendix A, Reference Method 9; or</li> <li>b. Forty percent (40%) opacity as measured by 40 CFR 60, Appendix A, Reference Method 9, reduced to a one-minute block average.</li> </ol>   | 1. RCSA Sections 22a-174-18(b)(1)(A) and (B)  |  |
| SOS, AOS  | TSP                                    | <ul> <li>2.i. The TSP emissions shall not exceed 0.10 lbs/MMBTU of heat input when operating on No. 2 fuel oil.</li> <li>2.ii. The TSP emissions shall not exceed 0.14 lbs/MMBTU of heat input when operating on residual fuel oil</li> <li>2.iii. The combined TSP emissions from burning No. 2 and residual oils shall not exceed 10.47 TPY.</li> </ul>   | <ul><li>2.i. CP/OP No. 117-0021</li><li>2.ii. CP/OP No. 117-0021</li><li>2.iii. CP/OP No. 117-0021</li></ul>  |  |
| SOS, AOS  | SO <sub>x</sub>                        | <ul> <li>3.i. The SO<sub>x</sub> emissions shall not exceed 0.33 lbs/MMBTU of heat input wher operating on No. 2 fuel oil (24-hour averaging time).</li> <li>3.ii. The SO<sub>x</sub> emissions shall not exceed 0.55 lbs/MMBTU of heat input wher operating on residual fuel oil (24-hour averaging time).</li> <li>3.iii. The combined SO<sub>x</sub> emissions from burning No. 2 and residual oils shall not exceed 41.13 TPY.</li> </ul>                             | 3.ii. CP/OP No. 117-0021 3.iii. CP/OP No. 117-0021 3.iii. CP/OP No. 117-0021  |  |
| SOS, AOS  | NO <sub>x</sub>                        | <ul> <li>4.i. The NO<sub>x</sub> emissions shall be less than or equal to 0.20 lbs/MMBTU of heat input when operating on No. 2 fuel oil (24-hour averaging time).</li> <li>4.ii. The NO<sub>x</sub> emissions shall be less than or equal to 0.25 lbs/MMBTU of heat input when operating on residual fuel oil (24-hour averaging time).</li> <li>4.iii. The combined NO<sub>x</sub> emissions from burning No. 2 and residual oils shall not exceed 17.69 TPY.</li> </ul> | <ul> <li>4.i. CP/OP No. 117-0021</li> <li>4.ii. Connecticut Trading Agreement and Order<br/>No.8243, CP/OP No. 117-0021</li> <li>4.iii. CP/OP No. 117-0021</li> </ul> |  |

| Table III.B: APPLICABLE REQUIREMENTS - EMISSIONS UNIT 2 (Auxiliary Steam Generator), continued |   |  |  |  |
|--|---|--|--|--|
| Operating<br>Scenarios<br>Identification   | Pollutants<br>or Process<br>Parameters                                  | Limitations or Restrictions  | Applicable Regulatory<br>References/Citations  |  |
| SOS, AOS   | No. 2 Fuel<br>Oil   | <ul> <li>5.i. The firing rate shall not exceed 997 gal/hr, daily average.</li> <li>5.ii. The combined annual fuel usage for No. 2 and residual fuel oils shall not exceed 997,000 gal/yr.</li> <li>5.iii. The sulfur content of the No. 2 fuel shall not exceed 0.3% by weight (dry basis).</li> </ul>   | <ul><li>5.i. CP/OP No. 117-0021</li><li>5.ii. CP/OP No. 117-0021</li><li>5.iii. CGS Section 16a-21a</li></ul>              |  |
| SOS, AOS   | Residual<br>Fuel Oil  | <ul> <li>6.i. The firing rate shall not exceed 997 gal/hr., daily average.</li> <li>6.ii. The combined annual fuel usage for No. 2 and residual fuel oils shall not exceed 997,000 gal/yr.</li> <li>6.iii. The sulfur content of the residual fuel oil shall be less than or equal to 0.5 % by weight (dry basis).</li> </ul>  | <ul><li>6.i. CP/OP No. 117-0021</li><li>6.ii. CP/OP No. 117-0021</li><li>6.iii. RCSA Section 22a-174-19(a)(2)(i)</li></ul> |  |
| AOS  | NO <sub>x</sub> Discrete<br>Emission<br>Reduction<br>Credits<br>(DERCs) | <ul> <li>7.i. The permittee shall have in its possession approved DERCs and shall document and record the amounts of all fuels and DERCs used by the boiler each month.</li> <li>7.ii. Prior to May 1, 2007 the permittee shall comply during the operation on No. 6 fuel oil with an enforceable maximum full load emission rate (FLER) limit of 0.4 lbs of NO<sub>x</sub> /MMBTU of heat input average on a 24-hr period.</li> <li>7.iii. No later than May 1, 2007, or such later date as the Commissioner may approve in writing, the permittee shall comply with the requirements of RCSA Section 22a-174-22(d)(1).</li> <li>7.iv. For the purposes of compliance with RCSA Section 22a-174-22, DERCs/allowances shall only remain valid for five (5) calendar years from the year of the generation/allocation of such DERCs/allowances. DERCs/allowances generated/allocated more than five (5) calendar years ago are not valid for use for</li> </ul> | Order No. 8243   |  |
|  |   | compliance with RCSA Section 22a-174-22. Notwithstanding the above, DERCs/allowances generated/allocated prior to calendar year 2000 are valid for use for compliance with RCSA Section 22a-174-22 up to and including December 31, 2004.  |  |  |

## C. EMISSIONS UNIT 3 - Solar "Spartan" Model #GS350 Gas Turbine Emergency Generator

| Table III.C: APPLICABLE REQUIREMENTS - EMISSIONS UNIT 3 (Solar "Spartan" Model #GS350 Gas Turbine Emergency Generator) |  |   |  |  |
|--|--|---|--|--|
| Operating<br>Scenarios<br>Identification   | Pollutants or<br>Process<br>Parameters | Limitations or Restrictions   | Applicable Regulatory References/Citations   |  |
| SOS  | Opacity                                | <ol> <li>The opacity shall not exceed the following visible emissions limits:</li> <li>a. Twenty percent (20%) opacity during any six-minute block average as measured by 40 CFR 60, Appendix A, Reference Method 9; or</li> <li>b. Forty percent (40%) opacity as measured by 40 CFR 60, Appendix A, Reference Method 9, reduced to a one-minute block average.</li> </ol> | 1. RCSA Sections 22a-174-18(b)(1)(A) and (B) |  |
| SOS  | TSP                                    | <b>2.</b> The TSP emissions shall not exceed 0.20 lbs/MMBTU of heat input when operating on No. 2 fuel oil.   | <b>2.</b> RCSA Section 22a-174-18(d)(1)      |  |
| SOS  | Hours of<br>Operation                  | 3. No owner or operator of an emergency engine shall cause or allow such engine to operate except during periods of testing and scheduled maintenance or during an emergency and unless the operation of such engine shall not exceed 300 hours during any twelve month rolling aggregate.  | 3. RCSA Section 22a-174-3b(e)(2)(C)          |  |
| SOS  | Sulfur Content                         | 4. No owner or operator of an emergency engine shall cause or allow such engine to operate except during periods of testing and schedule maintenance or during an emergency and unless any nongaseous fue consumed by such engine shall not exceed a sulfur content of motor vehicle diesel fuel where "motor vehicle diesel fuel" is defined in RCSA Section 22a-174-42.   |  |  |
| SOS  | Operational<br>Requirements            | 5. The owner or operator of an emergency engine shall properly maintain equipment and operate such engine in accordance with RCSA Section 22a-174-3b(e).  | 5. RCSA Section 22a-174-3b(e)(1)             |  |

## D. GENERAL EMISSIONS REDUCTION CREDIT REQUIREMENTS

Any creation or use of DERCs or BDERCs for the purpose of Emissions Reduction Trading shall be consistent with the provisions of the U.S. Environmental Protection Agency's "Economic Incentive Program Rules; Proposed Rules," published February 23, 1993 (Federal Register, Volume 58, Number 34), and the U.S. Environmental Protection Agency's "Emissions Trading Policy Statement," published December 4, 1986 (Federal Register, Volume 51, Number 233). [RCSA Section 22a-174-22(j)(3); Connecticut Trading Agreement and Order Nos. 8240 and 8243]

Specifically, the reductions will be:

<u>Real</u> because they result in a reduction of actual emissions released into the air, net of any consequential increase in actual emissions resulting from shifting demand. The emission reductions are properly measured, recorded and reported.

<u>Quantifiable</u> because they are based on Continuous Emission Monitoring Data as applied in an appropriate reliable and replicable protocol providing that the rate and the total mass amount of reduction.

<u>Surplus</u> because they are not required by any Connecticut statute or regulation mandated by a current State Implementation Plan ("SIP"), and are not currently relied upon in any applicable attainment plan, any reasonable further progress plan or milestone demonstration.

<u>Permanent</u> because an appropriate tracking system is in place to monitor all data required to verify and quantify the creation of DERCs.

<u>Enforceable</u> because the DERCs are approved by the Commissioner retrospectively after the submission of the reports that document their creation.

#### E. ACID RAIN PROGRAM

Emissions Unit 1 (EMU1) Main Steam Generator NHHS#1

The permittee shall operate EMU1 in accordance with the Acid Rain Permit No. 117-001-T IV. The Commissioner will modify this Title V Operating Permit to incorporate a  $NO_x$  emission limit within one year of the date the Commissioner accepts delegation of federal  $NO_x$  requirements promulgated by the Administrator to be set forth in 40 CFR Part 76.

ACID RAIN PROGRAM - SO<sub>2</sub> ALLOWANCE ALLOCATIONS

SO<sub>2</sub> Allowance Allocation (tons/year) for EMU1

| Year | 2003 - 2007 |
|------|-------------|
| Tons | 13,070      |

### F. NO<sub>x</sub> BUDGET PROGRAM

EMU1 is a NO<sub>x</sub> budget source and therefore is subject to RCSA Section 22a-174-22a and Section 22a-174-22b. The permittee shall comply with all applicable requirements stated in RCSA Section 22a-174-22a and Section 22a-174-22b for EMU1.

## G. 112(r) ACCIDENTAL RELEASE REQUIREMENTS

Should any of the units, as defined in 40 CFR Section 67.3, become subject to the accidental release prevention regulations in part 68, then the permittee shall submit a risk management plan pursuant to 40 CFR Section 67.12 by the date specified in 40 CFR Section 67.10 and shall certify compliance with the requirements of 40 CFR Part 68 as part of the annual compliance certification as required by 40 CFR Section 70.6(c)(5).

## H. STRATOSPHERIC OZONE DEPLETING SUBSTANCES (40 CFR PART 82) REQUIREMENTS

The permittee shall comply with the standards for recycling and emissions reduction of products using ozone depleting substances pursuant to 40 CFR Part 82, Subpart F.

## I. PREMISES -WIDE GENERAL REQUIREMENTS

| TABLE III.I: PREMISES-WIDE GENERAL REQUIREMENTS   |   |  |  |
|---|---|--|--|
| Pollutants or<br>Process Parameters   | Applicable Regulatory<br>References/Citations | Limitations or Restrictions  |  |
| No. 2 Fuel Oil  | CGS 16a-21a                                   | The sulfur content of No. 2 fuel oil shall not exceed 0.3% by weight (dry basis).  |  |
| No. 6 Fuel Oil  | RCSA Section 22a-174-19                       | The sulfur content of No. 6 fuel oil shall not exceed 1.0% by weight (dry basis).  |  |
| Opacity   | RCSA Section 22a-174-18(b)                    | The permittee shall comply with the visible emission standards as specified in RCSA Section 22a-174-18(b).   |  |
| Annual Emission<br>Statements   | RCSA Section 22a-174-4                        | The permittee shall submit annual emission inventory statements requested by the Commissioner as specified in RCSA Section 22a-174-4(c)(1).  |  |
| Emergency Episode<br>Procedures   | RCSA Section 22a-174-6                        | The permittee shall comply with the procedures for emergency episodes as specified in RCSA Section 22a-174-6.  |  |
| Malfunction of Control Equipment; Reporting & Required CEM Equipment for Stationary Sources | RCSA Section 22a-174-7                        | <ul> <li>i. Control equipment or methods shall be maintained in operation at all times that emission sources are in operation or are emitting air pollutants.</li> <li>ii. No person shall deliberately shut down any such control equipment, method or other instrument while the source is in operation except for such necessary maintenance as cannot be accomplished when the stationary source itself is not in operation and is not emitting air pollutants.</li> <li>iii. In the case of breakdown, failure, or deliberate shutdown of any control equipment, method or other instrument during which time the stationary source will be in operation, all reasonable measures shall be taken to assure resumption of control as soon as possible. Due diligence shall be exercised to minimize emissions while the control equipment or method is inoperative. In the event such shutdown of control equipment or methods is expected or may reasonably be expected to continue for longer than 72 hours, and if the source is to be operated at any time during that period, the Commissioner shall be notified promptly. Such notice shall include, but is not limited to the following: <ul> <li>Identification of the specific equipment or instrument taken out, or to be taken out, of service as well as its locations, and where applicable, registration or permit numbers;</li> <li>The expected length of time that the air pollution control equipment or instrument will be out of service;</li> <li>The nature and quantity of emissions of air pollutants likely to be emitted during the shutdown period;</li> <li>Measures such as the use of off-shift labor and equipment that will be taken to minimize the length of the shutdown period; and</li> <li>The reasons that it would be impossible or impractical to shut down the stationary source operation during the maintenance period.</li> </ul> </li> </ul> |  |

| TABLE III.I: PREMISES - WIDE GENERAL REQUIREMENTS, continued  |   |   |  |  |
|---|---|---|--|--|
| Pollutants or Process<br>Parameters   | Applicable Regulatory<br>References/Citations | Limitations or Restrictions   |  |  |
| Prohibition of Air<br>Pollution   | RCSA Section 22a-174-9                        | <ul> <li>i. No person shall permit or cause air pollution as defined in RCSA Section 22a-174-1. This includes air pollutants not otherwise covered by the RCSA Section 22a-174-1 through Section 22a-174-100.</li> <li>ii. The permittee shall operate the premises in accordance with all applicable emissions standards, standards of performance, and any other applicable requirements under 40 CFR Part 60, Standards of Performance of New Stationary Sources, or 40 CFR Part 61, National Emission Standards for Hazardous Air Pollutants, as from time to time may be amended, which the Administrator has delegated to the Commissioner and which delegation the Commissioner has accepted.</li> </ul> |  |  |
| Public Availability of Information  | RCSA Section 22a-174-10                       | The public availability of information shall apply, as specified in RCSA Section 22a-174-10.  |  |  |
| Prohibition Against<br>Concealment/<br>Circumvention  | RCSA Section 22a-174-11                       | The permittee shall comply with the prohibition against concealment or circumvention as specified in RCSA Section 22a-174-11.   |  |  |
| Receiving, Storing,<br>and Blending Fuel Oil<br>with Greater than 1%<br>Sulfur by Weight (dry<br>basis) in the Non- | RCSA Section 22a-174-<br>19(a)(4)(iii)(E)     | i. The permittee shall not dispense, under any circumstances, any fuel with greater than 1% sulfur content by weight (dry basis) or any non-conforming fuel from any tank for distribution to any fuel user in Connecticut. Any fuel with greater than 1% sulfur by weight (dry basis) at the facility shall only be transferred to sites outside of Connecticut, and never transferred to site(s) in Connecticut, with the exception of those facilities owned by PSEG Fossil LLC doing business in Connecticut.   |  |  |
| Operating Tanks   |   | ii. The permittee shall designate one (1) operating tank at all times to store fuel with one percent (1%) sulfur by weight (dry basis) or less to supply its own generating units.  |  |  |
|   |   | <ul> <li>iii. The permittee shall maintain records of the volume and sulfur content by weight (dry basis) of any and all fuel transfers into, out of, and among non-operating tanks. Failure to maintain such records or failure to inform the Commissioner of all transfers may result in the Commissioner's revocation of this approval.</li> <li>iv. The permittee shall inform the Commissioner in writing at least three (3) days prior to transferring fuel with greater than 1% sulfur by weight (dry basis) from the facility and shall specify the volume, percent (%) of sulfur content by weight (dry basis), and destination(s) of the fuel transferred.</li> </ul>                                 |  |  |
| Emission Fees   | RCSA Section 22a-174-26                       | The permittee shall pay an emission fee in accordance with RCSA Section 22a-174-26.   |  |  |

The following contains summaries of compliance demonstration for identified Emissions Units in the Standard Operating Scenario (SOS) and the Alternative Operating Scenario (AOS) regulated by this Title V Operating Permit.

#### A. EMISSIONS UNIT 1 - Main Steam Generator NHHS #1

#### 1. Monitoring and Testing Requirements

i. Pollutant or Process Parameter: Opacity

Opacity shall not exceed those limits stated in Table III.A.1 of this Title V Operating Permit. The permittee shall demonstrate compliance by:

- a. The permittee shall calibrate, maintain, operate, and certify a CEM for opacity. The CEM shall be calibrated, operated and tested in accordance with CT DEP Continuous Emission Monitoring Guideline and with the requirements specified in 40 CFR Part 60 Subpart A, Appendix B and Appendix F, as may be amended from time to time. [RCSA Section 22a-174-4(b)(1)]
- b. If required by the Commissioner, the permittee shall, within the time period specified by the Commissioner, measure opacity using 40 CFR Part 60 Appendix A, Method 9 stack test. [RCSA Section 22a-174-4(a)(1)]
- ii. Pollutant or Process Parameter: PM-10

Emissions of PM-10 shall not exceed those limits stated in Table III.A.2 of this Title V Operating Permit. The permittee shall demonstrate compliance by:

- a. The permittee shall achieve compliance with the particulate emission limitation with the use of a manufacturer guaranteed electrostatic precipitator of 95% removal efficiency or an outlet level of 0.005 grains per actual cubic foot, whichever is greater. The permittee shall maintain the electrostatic precipitator in proper operation by following the manufacturer's instructions or good engineering practices. [CP/OP No. 117-0031]
- b. If required by the Commissioner, the permittee shall, within the time period specified by the Commissioner, measure PM-10 emissions using 40 CFR Part 60 Appendix. A, Method 5 stack test. [RCSA Section 22a-174-5(b)(5)]
- iii. Pollutant or Process Parameter: SO<sub>x</sub>

Emissions of  $SO_x$  shall not exceed those limits stated in Table III.A.3 of this Title V Operating Permit. The permittee shall demonstrate compliance by:

- a. The permittee shall calibrate, maintain, operate, and certify a CEM for SO<sub>x</sub>. The CEM shall be calibrated, operated and tested in accordance with CT DEP Continuous Emission Monitoring Guideline and with the requirements specified in 40 CFR Part 60 Subpart A, Appendix B and Appendix F, as may be amended from time to time.[RCSA Section 22a-174-19(a)]
- b. The permittee shall monitor fuel merchant certifications from the fuel supplier certifying the type of fuel, the weight percent of sulfur (dry basis) in the fuel, name of fuel supplier, and the method used to determine the sulfur content of fuel for each shipment of liquid fuel. The permittee shall monitor monthly meter readings for natural gas usage. [RCSA Section 22a-174-4(c)(1) & 22a-174-19(a)(5)]
- c. If required by the Commissioner, the permittee shall, within the time period specified by the Commissioner, measure  $SO_x$  emissions using 40 CFR Part 60 Appendix A, Method 6 stack test. [RCSA Section 22a-174-4(a)(1)]

#### iv. Pollutant or Process Parameter: VOC

Emissions of VOC shall not exceed those limits stated in Table III.A.4 of this Title V Operating Permit. The permittee shall demonstrate compliance by:

- Maintaining good operational practices following either the manufacturers instructions, good engineering practices or the State of Connecticut, Department of Public Safety's "Boiler Operation Guidelines";
- b. Meeting the emissions limitations for SO<sub>x</sub> and NO<sub>x</sub>; and meeting the maximum hourly and annual fuel consumption rates in Table III.A.3 and Table III.A.7 of this Title V Operating Permit.

#### v. Pollutant or Process Parameter: CO

Emissions of CO shall not exceed those limits stated in Table III.A.5 of this Title V Operating Permit. The permittee shall demonstrate compliance by:

- a. Maintaining good operational practices following either the manufacturers instructions, good engineering practices or the State of Connecticut, Department of Public Safety's "Boiler Operation Guidelines";
- b. Meeting the emissions limitations for SO<sub>X</sub> and NO<sub>X</sub>; and meeting the maximum hourly and annual fuel consumption rates in Table III.A.3 and Table III.A.7, of this Title V Operating Permit.

#### vi. Pollutant or Process Parameter: Pb

Emissions of Pb shall not exceed those limits stated in Table III.A.6 of this Title V Operating Permit. The permittee shall demonstrate compliance by:

- a. Maintaining good operational practices following either the manufacturers instructions, good engineering practices or the State of Connecticut, Department of Public Safety's "Boiler Operation Guidelines";
- b. Meeting the emissions limitations for SO<sub>X</sub> and NO<sub>X</sub>; and meeting the maximum hourly and annual fuel consumption rates in Table III.A.3 and Table III.A.7, of this Title V Operating Permit.

#### vii. Pollutant or Process Parameter: NO<sub>x</sub>

Emissions of  $NO_x$  shall not exceed those limits stated in Table III.A.7 of this Title V Operating Permit. The permittee shall demonstrate compliance by:

- a. The permittee shall calibrate, maintain, operate, and certify a CEM for NO<sub>x</sub>. The CEM shall be calibrated, operated and tested in accordance with CT DEP Continuous Emission Monitoring Guideline (dated August 19, 1996) and with the requirements specified in 40 CFR Part 60 Subpart A, Appendix B and Appendix F, as may be amended from time to time. [RCSA Section 22a-174-22(k)(3)]
- b. The performance or quality assurance testing of the CEM shall be conducted in accordance with a testing protocol approved by the Commissioner. [RCSA Section 22a-174-22(k)(3)]
- c. The averaging times for the emission limitations with the use of the CEM shall be twenty-four (24) hours, measured from midnight at the beginning of any day to midnight of the end of that day and shall include all periods of operation, including startup, shutdown, and malfunction. [RCSA Section 22a-174-22(k)(4)]
- d. The permittee shall use data recorded by the CEM and any other records and reports to determine compliance with NO<sub>x</sub> emissions. [RCSA Section 22a-174-22(1)(7)]
- e. The permittee shall comply with the  $NO_x$  compliance plan, approved by the Commissioner. [RCSA Section 22a-174-22(m)]
- f. If required by the Commissioner, the permittee shall, within the time period specified by the Commissioner, measure NO<sub>x</sub> emissions using 40 CFR Part 60 Appendix A, Method 7 stack test. [RCSA Section 22a-174-4(a)(1)]

- viii. Pollutant or Process Parameter: NO<sub>x</sub> Discrete Emission Reduction Credits
  - a. In accordance with the requirements set forth below, the permittee shall acquire approved DERCs monthly on an as needed basis, as determined by actual NO<sub>x</sub> emissions in the event that the 24-hour average of actual NO<sub>x</sub> emissions exceed the NO<sub>x</sub> emission limitations stated in Section III, Table III.A.8 of this permit. [Connecticut Trading Agreement and Order No. 8240]
  - b. When EMU1 has a daily and/or monthly NO<sub>x</sub> emission rate below the applicable baseline emission rate, the permittee shall calculate the amount of DERCs generated as follows: [Connecticut Trading Agreement and Order No. 8240]

DERCs (tons) = {(Total heat input<sup>1</sup> of all fuels in MMBTU) x (proportioned baseline emission rate<sup>2</sup> lbs NOx/[MMBTU]) - (the CEM-recorded NO<sub>x</sub> emission rate<sup>3</sup> lbs NO<sub>x</sub>/MMBTU) ÷ 2000 lbs/ton}x(0.90)<sup>4</sup>

- <sup>2</sup> This rate shall be calculated by 1) multiplying the heat input of each fuel combusted by the baseline emission rate(s) for such fuel; 2) summing those products; and 3) dividing the sum by the total heat input. If the unit is operating exclusively on one fuel, the permittee may replace the proportioned baseline emission rate with the applicable baseline emission rate, for that fuel. Starting on October 1, 2003, the baseline emission rate during the non-ozone season shall be 0.15 lbs/MMBTU. The ten (10) percent uncertainty discount due to not having data from an official Method 7-E stack test or CEM data while operating on No.2 fuel oil and/or natural gas shall be incorporated into the proportioned baseline emission rate whenever the boiler is operating on No. 2 fuel oil and/or natural gas. (During the ozone season only starting on October 1, 2003) shall be incorporated into the proportioned baseline emission rate whenever the boiler is operating on No. 2 fuel oil and/or natural gas.
- $^3$  During the ozone season until May 1, 2007, and during the non-ozone season until October 1, 2003, this rate shall be calculated pursuant to the methodology described in 40 CFR Part 75 and weighted pursuant to the Department of Environmental Protection's policy statements entitled Guidance for Calculation of Emission Reduction Credits and the Determination of Compliance with NO<sub>x</sub> RACT for sources subject to 40 CFR (Acid Rain Sources), dated 12/18/98, which are attached to and incorporated by reference into the Trading Agreement and Order No. 8240 as part of Attachment 1.
- <sup>4</sup> An additional ten (10) percent of all DERCs (tons) generated by the boiler shall also be retired by the facility and permanently removed from all calculations on a daily basis to assure a benefit to the environment. Starting on October 1, 2003, during the non-ozone season, the ten percent discount shall be retired by the facility and permanently removed from all calculations on a seasonal basis to assure a benefit to the environment.
- c. When calculating DERCs, the permittee shall use the lower of CEM-recorded NO<sub>x</sub> emission rate(s) and the actual fuel usage data for the unit in MMBTU/day, to determine the heat input. This emission rate shall be calculated pursuant to the methodology described in 40 CFR Part 75. [Connecticut Trading Agreement and Order No. 8240]
- d. The permittee shall acquire approved DERCs, and document and record the amounts of NO<sub>x</sub> emissions and DERCs used by serial number (if assigned) by the boiler each day and starting on October 1, 2003, also each non-ozone season, and shall maintain and provide such records in accordance with the following and Section 22a-174-4 of the Regulations, until May 1, 2007. [Connecticut Trading Agreement and Order No. 8240]

<sup>&</sup>lt;sup>1</sup> Heat input shall be calculated using the lower of CEM -recorded data or actual fuel usage data in MMBTU per unit of fuel combusted.

- e. During the ozone season until May 1, 2007 and during the non-ozone season until October 1, 2003: In requesting approval of DERCs generated by the boiler, PSEG shall provide documentation containing a sample spreadsheet with calculation formulas used to determine reported numbers; monthly operating reports of actual fuel usage including the fuel BTU content, number of barrels, gallons, and cubic feet used for each fuel type; daily MMBTU for each fuel type and actual heat input based upon CEM-recorded data; daily weighted and unweighted actual NO<sub>x</sub> emission rates (24-hour average); and DERCs generated using the baseline emission rate(s), or the proportioned baseline emission rate referenced in Section IV.A.1.viii.b of this Title V Operating Permit, net of the applicable uncertainty and environmental discounts. [Connecticut Trading Agreement and Order No. 8240]
- f. When the daily or non-ozone season CEM-recorded NO<sub>x</sub> emission rate is used to calculate DERCs generated by the boiler, PSEG shall not include missing data calculated in accordance with any missing data substitution procedures, including those allowed under 40 CFR Part 75. [Connecticut Trading Agreement and Order No. 8240]
- g. When the daily or non-ozone season CEM-recorded NO<sub>x</sub> emission rate is used to calculate DERCs used by the boiler, PSEG shall include missing data calculated in accordance with missing data substitution procedures under 40 CFR Part 75. [Connecticut Trading Agreement and Order No. 8240]
- h. During the non-ozone season starting on October 1, 2003 and until May 1, 2007, in requesting approval of DERCs generated by the boiler, the permittee shall provide documentation containing a sample spreadsheet with calculation formulas used to determine reported numbers; non-ozone season operating reports of actual fuel usage including the fuel BTU content, number of barrels, gallons, and cubic feet used for each fuel type; non-ozone season MMBTU for each fuel type and actual heat input based upon CEM-recorded data; non-ozone season actual NO<sub>x</sub> emission rates (seven month average); and DERCs generated using the 0.15 lbs/MMBTU baseline emission rate(s), net of the applicable environmental discount. [Connecticut Trading Agreement and Order No. 8240]
- i. When calculating DERCs, the permittee shall use the lower of non-ozone season total CEM-calculated MMBTU value or actual fuel usage data for the boiler in MMBTU/non-ozone season, when determining heat input [Connecticut Trading Agreement and Order No. 8240]
- j. Before the first day of each month, the permittee shall calculate the projected worst case DERCs required for that calendar month as follows:

DERCs (tons) = {[estimated worst case  $NO_x$  emission rate in lbs/MMBTU - ((0.95) x ( $NO_x$  allowable limit or proportioned emission rate calculated pursuant to Section 22a-174-22(f)(2)(A) of the Regulations in lbs/MMBTU))] x (Estimated fuel use in MMBTU)})+2000 pounds. [Connecticut Trading Agreement and Order No. 8240]

k. The permittee shall acquire sufficient approved DERCs no later than the first day of each month to assure compliance for emission limitations in Table III.A.7 of this permit. Excess credits from previous months can be applied to subsequent months. At a minimum, DERCs required shall be adjusted upwards by 100% if DERCs are not in the permittee's possession prior to the first day of each month and, starting on October 1, 2003, each non-ozone season. [Connecticut Trading Agreement and Order No. 8240]

- l. Before the first day of each month, the permittee shall calculate projected worst case DERCs required for that calendar month as follows:
  - Estimated DERCs (tons) = {[estimated worst case  $NO_x$  emission rate in lbs/MMBTU ((0.95) x (NOx allowable limit or proportioned emission rate calculated pursuant to Section 22a-174-22(f)(2)(A) of the Regulations in lbs/MMBTU))] x (Estimated fuel use in MMBTU)} ÷ 2000 pounds/ton.
- m. No later than the twentieth day of each month, PSEG shall calculate and permanently retire DERCs used in the preceding calendar month. Each day, the permittee shall determine whether the 24-hour average NO<sub>x</sub> emission rate\* is less than the baseline emission rate or greater than the NO<sub>x</sub> allowable limit for EMU1. When EMU1 has a daily NO<sub>x</sub> emission rate (24-hour average) exceeding the NO<sub>x</sub> allowable limit, the permittee shall calculate the amount of DERCs used, as follows:

Actual DERCs (tons) = {[(CEM-recorded NO<sub>x</sub> daily average emission rate in lbs/MMBTU\*) - ((0.95) x (NO<sub>x</sub> allowable limit or proportioned emission rate calculated pursuant to Section 22a-174-22(f)(2)(A) of the Regulations in lbs/MMBTU))) x (actual fuel use in MMBTU)}  $\div$  2000 pounds/ton.

\*This rate shall be calculated pursuant to the methodology described in 40 CPR Part 75.

- n. Upon sufficient documentation, as determined by the Commissioner, that the permittee has met the requirements of Connecticut Trading Agreement and Order No. 8240, the Commissioner may provide written approval of DERCs generated by the permittee retrospectively. Requests for approval of all DERCs generated shall be submitted in writing to the Commissioner. Such requests shall be compiled on a monthly or seasonal (during the non-ozone season only starting on October 1, 2003) basis and shall be submitted at least on an annual basis. Approved DERCs generated by the permittee under Trading Agreement and Order No. 8240 may be held or transferred to other persons [Connecticut Trading Agreement and Order No. 8240]
- o. After full program review, and if the Commissioner deems it appropriate, the Commissioner may allow the survival and use of DERCs beyond April 30, 2005. [Connecticut Trading Agreement and Order No. 8240]
- p. Pursuant to RCSA Section 22a-174-22a(f)(4), the permittee may use allowances acquired pursuant to the provisions of The Nitrogen Oxides (NO<sub>x</sub>) Budget Program to comply with the emission limitations specified in Section III Table III.A.8 of this permit pursuant to the provisions of RCSA Section 22a-174-22(j), Emissions Reduction Trading, as long as the permittee remains an owner or operator of a budget source, for purposes of the Trading Agreement and Order No. 8240. Any allowance used for compliance with RCSA Section 22a-174-22(e) shall be subject to all restrictions and/or requirements applicable to DERCs contained in the Trading Agreement and Order and/or RCSA Section 22a-174-22a. [Connecticut Trading Agreement and Order No. 8240]
- q. For the purposes of compliance with RSCA Section 22a-174-22, DERCs/allowances shall only remain valid for five (5) calendar years from the year of the generation/allocation of such DERCs/allowances. DERCs/allowances older than five (5) calendar years from their creation/allocation are not valid for use for compliance with RSCA Section 22a-174-22. Notwithstanding the above, DERCs/allowances generated/allocated prior to calendar year 2000 are valid for use for compliance with RSCA Section 22a-174-22 up to and including December 31, 2004. [Connecticut Trading Agreement and Order No. 8240]

- ix. Pollutant or Process Parameter: Natural Gas, No. 2 and Residual Fuel Oils
  - a. The permittee shall monitor monthly and annual fuel consumption for each fuel. [CP/OP No. 117-0031; Connecticut Trading Agreement and Order No. 8240]
  - b. The permittee shall have sulfur content of liquid fuels analyzed according to the most current American Society for Testing and Materials methods D4294. [RCSA Section 22a-174-19a(i)(B)]

## 2. Record Keeping Requirements

i. Pollutant or Process Parameter: Opacity

The permittee shall keep all charts, electronically stored data, and printed records produced by the opacity continuous emissions monitor. [RCSA Section 22a-174-4(c)(1)]

- ii. Pollutant or Process Parameter: PM-10
  - a. The permittee shall keep monthly and annual records of all fuel used. [RCSA 22a-174-4(c)(1)]
  - b. The permittee shall maintain monthly and annual records of actual PM-10 emissions. The monthly PM-10 emissions shall be calculated using emission factors obtained from stack testing and the fuel usage. Annual PM-10 emissions shall be calculated each calendar month by adding the current calendar month's PM-10 emissions to those of the previous eleven months. [RCSA Section 22a-174-4(c)(1)]
- iii. Pollutant or Process Parameter: SO<sub>x</sub>
  - a. The permittee shall keep all charts, electronically stored data, and printed records produced by the  $SO_x$  continuous emissions monitor. [RCSA Section 22a-174-4(c)(1)]
  - b. The permittee shall maintain monthly and annual records of actual SO<sub>x</sub> emissions. The monthly SO<sub>x</sub> emissions shall be calculated using emission factors obtained from stack testing and the fuel usage. Annual SO<sub>x</sub> emissions shall be calculated each calendar month by adding the current calendar month's SO<sub>x</sub> emissions to those of the previous eleven months. [RCSA Section 22a-174-4(c)(1)]
- iv. Pollutant or Process Parameter: VOC
  - a. The permittee shall keep monthly and annual records of all fuel used. [RCSA Section 22a-174-4(c)(1)]
  - b. The permittee shall maintain monthly and annual records of actual VOC emissions. The monthly VOC emissions shall be calculated using emission factors obtained from stack testing and the fuel usage. Annual VOC emissions shall be calculated each calendar month by adding the current calendar month's VOC emissions to those of the previous eleven months. [RCSA Section 22a-174-4(c)(1)]
- v. Pollutant or Process Parameter: CO
  - a. The permittee shall keep monthly and annual records of all fuel used. [RCSA Section 22a-174-4(c)(1)]
  - b. The permittee shall maintain monthly and annual records of actual CO emissions. The monthly CO emissions shall be calculated using emission factors obtained from stack testing and the fuel usage. Annual CO emissions shall be calculated each calendar month by adding the current calendar month's CO emissions to those of the previous eleven months. [RCSA Section 22a-174-4(c)(1)]

#### vi. Pollutant or Process Parameter: Pb

- a. The permittee shall keep monthly and annual records of all fuel used. [RCSA Section 22a-174-4(c)(1)]
- b. The permittee shall maintain monthly and annual records of actual Pb emissions. The monthly Pb emissions shall be calculated using emission factors obtained from stack testing and the fuel usage. Annual Pb emissions shall be calculated each calendar month by adding the current calendar month's Pb emissions to those of the previous eleven months. [RCSA Section 22a-174-4(c)(1)]

#### vii. Pollutant or Process Parameter: NO<sub>x</sub>

- a. The permittee shall maintain records for the unit showing daily NO<sub>x</sub> mass emissions, and actual NO<sub>x</sub> emission rates (24-hour average). [Connecticut Trading Agreement and Order No. 8240]
- b. The permittee shall keep monthly and annual records of fuel use, continuous emissions monitoring data, and operating hours. [RCSA Section 22a-174-22(1)(1)(C)]
- c. The permittee shall keep records of all tune-ups, repairs, replacement of parts and other maintenance done on the unit. [RCSA Section 22a-174-22(l)(1)(D)]
- d. The permittee shall keep copies of all documents submitted to the Commissioner pursuant to RCSA Section 22a-174-22. [RCSA Section 22a-174-22(1)(1)(E)]
- e. The permittee shall keep all charts, electronically stored data, and printed records produced by the NO<sub>x</sub> continuous emissions monitor. [RCSA Section 22a-174-22(l)(1)(F)]
- f. The permittee shall keep procedures for calculating  $NO_x$  emission rates. [RCSA Section 22a-174-22(l)(1)(G)]
- g. The permittee shall keep records of the dates, times, and places of all emission testing done on EMU1, the persons performing the measurements, the testing methods used, the operating conditions at the time of testing, and the results of such testing. [RCSA Section 22a-174-22(1)(1)(H)]
- h. The permittee shall keep records of all performance evaluations, calibration checks and adjustments on CEM; a record of maintenance procedures; and all data necessary to complete the quarterly reports required by the Commissioner. [RCSA Section 22a-174-22(1)(1)(1)]

#### viii. Pollutant or Process Parameter: NO<sub>x</sub> DERCs

- a. The permittee shall shall maintain records for the boiler showing daily  $NO_x$  mass emissions, actual  $NO_x$  emission rates (24-hour average), and starting on October 1, 2003 non-ozone season  $NO_x$  emission rates. [Connecticut Trading Agreement and Order No. 8240]
- b. The permittee shall also maintain records showing a daily total of all DERCs used and generated net of the applicable uncertainty and environmental discounts. [Connecticut Trading Agreement and Order No. 8240]
- c. The permittee shall maintain documentation showing that DERCs used during the ozone season were generated during the ozone season. Generator certification of this fact shall be sufficient. [Connecticut Trading Agreement and Order No. 8240]

#### ix. Pollutant or Process Parameter: $NO_x$ DERCs

The permittee shall maintain records showing a daily and monthly total of all BDERCs generated net of the applicable uncertainty and environmental discounts. [Connecticut Trading Agreement and Order No. 8240]

- x. Pollutant or Process Parameter: Natural Gas, No. 2 and Residual Fuel Oils
  - a. The permittee shall keep records of monthly and annual fuel consumption for each fuel. Annual fuel consumption shall be based on consecutive twelve (12) month periods and shall be determined by adding (for each fuel) the current month's fuel usage to that of the previous eleven (11) months. [CP/OP No. 117-0031; Connecticut Trading Agreement and Order No. 8240]
  - b. The permittee shall maintain records of fuel merchant certifications from the fuel supplier certifying the type of fuel, the weight percent of sulfur in the fuel, name of the fuel supplier, and the method used to determine the sulfur content of fuel for each shipment. [RCSA Section 22a-174-19(a)(5)]

## 3. Reporting Requirements

- i. Pollutant or Process Parameter: NO<sub>x</sub>, NO<sub>x</sub> DERCs and NO<sub>x</sub> BDERCs
  - a. The permittee shall notify the Commissioner in writing at least thirty (30) days prior to conducting any performance or quality assurance testing of the  $NO_x$  CEM. [RCSA Section 22a-174-22(k)(3)]
  - b. The permittee shall submit to the Commissioner written quarterly reports of excess emissions and CEM malfunctions. Such reports shall be submitted to the Commissioner on or before January 30, April 30, July 30, and October 30 of each calendar year and shall include data for the three calendar month period ending the month before the due date of the report. For each period of excess emissions, such report shall include the date and time of commencement and completion of such period, the magnitude and suspected cause of the excess emissions and all actions taken to correct the excess emissions. For each malfunction of the CEM system, such report shall include the date and time of when the malfunction commenced and ended, and all actions taken to correct the malfunction. [RCSA Section 22a-174-4(c)(1); RCSA Section 22a-174-22(l)(1)(C)]
  - c. On or before April 15 of each year, the permittee shall submit a report on NO<sub>x</sub> emissions from such source, on a form provided by the Commissioner. [RCSA Section 22a-174-22(l)(6)]
  - d. Within sixty (60) days of the completion of certification tests conducted on the CEM, the permittee shall submit a written report of the results of such testing to the Commissioner. [RCSA Section 22a-174-22(1)(3)]
- ii. Pollutant or Process Parameter: NO<sub>x</sub> DERCs
  - a. The permittee shall include with the Annual Emission Statement provided to the Commissioner, a record of each sale or other transfer, and use of any and all of the DERCs approved within the Connecticut Trading Agreement and Order No. 8240 until all such DERCs have been used. The permittee shall also include actual NO<sub>x</sub> emissions from the unit. These reports shall be on a form prescribed by the Commissioner. This reporting requirement may cease if the Commissioner approves a central registry. [Connecticut Trading Agreement and Order No. 8240]
  - b. The permittee shall provide all records specified in Section IV.A.2.viii of this Title V Operating Permit to the Commissioner within thirty (30) days of receipt of a written request from the Commissioner. [RCSA Section 22a-174-4(c)(1)]
- iii. Pollutant or Process Parameter: NO<sub>x</sub> BDERCs
  - a. No later than March 1 of every year, the permittee shall include with the Annual Emission Statement provided to the Commissioner, a record of each sale or other transfer, and use of any and all of the DERCs approved within and subsequent to issuance of Trading Agreement and Order No.8240 until all such DERCs have been used. The permittee shall also include actual NO<sub>x</sub> emissions from the EMU1, and the amount of all DERCs used (including serial numbers (if assigned) and approved DERCs generated and/or purchased from other facilities), generated and/or approved for the previous calendar year. These reports shall be on a form prescribed by the Commissioner. Should the permittee choose

- to discontinue the generation of DERCs, the permittee shall notify the Commissioner in writing upon discontinuance. [Connecticut Trading Agreement and Order No. 8240]
- b. The permittee shall provide all records specified in Section IV.A.2.ix of this Title V Operating Permit to the Commissioner within thirty (30) days of receipt of a written request from the Commissioner. [RCSA Section 22a-174-4(c)(1)]
- iv. Pollutant or Process Parameter: Natural Gas, No. 2 and Residual Fuel Oils

The permittee shall provide all the fuel records specified in Section IV.A.2.x of this Title V Operating Permit to the Commissioner within thirty (30) days of receipt of a written request from the Commissioner. [RCSA Section 22a-174-4(c)(1)]

- v. General Reporting Requirements
  - a. The permittee shall furnish or make available all records and test results for inspection by the Commissioner and/or the Administrator or any of their agents upon request. [CP/OP No. 117-0031]
  - b. The permittee shall submit to the Commissioner a written semi-annual report summarizing all monitoring data and related supporting information. [RCSA Section 22a-174-33(o)(1)]

### B. EMISSIONS UNIT 2 - Auxiliary Steam Generator

## 1. Monitoring and Testing Requirements

i. Pollutant or Process Parameter: Opacity
Opacity shall not exceed those limits stated in Table III.B.1 of this Title V Operating Permit. If required by the Commissioner, the permittee shall, within the time period specified by the Commissioner, measure opacity using 40 CFR 60 Method 9, Appendix A stack test. [RCSA Section 22a-174-5(e)(2) & Section 33(j)(1)(K) and 40 CFR Section 70.6(a)(3)]

ii. Pollutant or Process Parameter: TSP

Emissions of TSP shall not exceed those limits stated in Table III.B.2 of this Title V Operating Permit. The permittee shall demonstrate compliance by:

- a. Calculating annual emissions for the annual emission statements using emission factors obtained by stack testing or from the latest version of AP-42 and the fuel usage.
- b. If required by the Commissioner, the permittee shall, within the time period specified by the Commissioner, measure TSP emissions using the average of three (3) one-hour 40 CFR Part 60 Method 5, Appendix A, stack tests. [RCSA Section 22a-174-5(e)(2)]
- iii. Pollutant or Process Parameter: SO<sub>x</sub>

Emissions of  $SO_x$  shall not exceed those limits stated in Table III.B.3 of this Title V Operating Permit. The permittee shall demonstrate compliance by:

- a. The permittee shall monitor fuel merchant certifications from the fuel supplier certifying the type of fuel, the weight percent of sulfur (dry basis) in the fuel, name of fuel supplier, and the method used to determine the sulfur content of fuel for each shipment of liquid fuel. [RCSA Section 22a-174-4(c)(1) & 22a-174-19(a)(5)].
- b. If required by the Commissioner, the permittee shall, within the time period specified by the Commissioner, measure SO<sub>x</sub> emissions using 40 CFR Part 60 Method 6, Appendix A stack test. [RCSA Section 22a-174-4(a)(1)]

## iv. Pollutant or Process Parameter: NO<sub>x</sub>

Emissions of NO<sub>x</sub> shall not exceed those limits stated in Table III.B.4 of this Title V Operating Permit. The permittee shall demonstrate compliance by:

- a. The permittee shall conduct NO<sub>x</sub> emission tests of the boiler at least once every two years commencing from the date of the applicable emission test for the boiler to be conducted in accordance with Section IV.B.1.iv.b of this Title V Operating Permit. [Connecticut Trading Agreement and Order No. 8243]
- b. In accordance with the methodology in RCSA Section 22a-174-22(k), PSEG shall conduct a NO<sub>x</sub> emission test of the boiler no later than one (1) year from February 13, 2003, date of issuance of Connecticut Trading Agreement and Order 8243. [Connecticut Trading Agreement and Order No. 8243]
- c. Compliance with the emission limitations shall be determined based on the average of three (3) one-hour tests, each performed over a consecutive 60-minute period and performed in accordance with RCSA Section 22a-174-5. Any analysis of nitrogen content conducted as part of such emission testing shall be in accordance with Method D-3228 of the American Society for the Testing of Materials. [RCSA Section 22a-174-22(k)(1)]

#### v. Pollutant or Process Parameter: No. 2 and Residual Fuel Oils

- a. The permittee shall keep records of monthly and annual fuel consumption for each fuel. Annual fuel consumption shall be based on any consecutive twelve (12) month period and shall be determined by adding (for each fuel) the current month fuel usage to that of the previous eleven (11) months. [CP/OP No. 117-0021; Connectic ut Trading Agreement and Order No. 8243]
- b. The permittee shall have sulfur content of liquid fuels analyzed according to the most current American Society for Testing and Materials methods D 129 or D 1552. [RCSA Section 22a-174-5(b)(1)]

#### vi. Pollutant or Process Parameter: NO<sub>x</sub>DERCs

- a. Prior to April 30, 2007 or until the permittee achieves compliance with the emission standards in RSCA Section 22a-174-22(e), whichever occurs earlier, the permittee shall have in its possession approved DERCs and shall document and record the amounts of all fuel and DERCs used by the boiler each month. [Connecticut Trading Agreement and Order No. 8243]
- b. Before the first day of each month, the permittee shall calculate projected DERCs required for the next calendar month for the boiler as follows: [Connecticut Trading Agreement and Order No. 8243]

DERCs (in tons) = [Estimated Fuel Use in MMBTU x  $(0.4 \text{ lbs/MMBTU} - (0.95 \text{ x } 0.25 \text{ lbs/MMBTU}))] \div 2000 \text{ lbs}$ 

- c. No later than the tenth day of each month, calculate DERCs used in the preceding calendar month for the boiler as follows: [Connecticut Trading Agreement and Order No. 8243] DERCs (tons) = [Actual Fuel Use in MMBTU x (.40 lbs/MMBTU (.95 x .25 lbs/MMBTU))]  $\div$  2000 pounds
- d. The FLER referenced in Table III.B.7.ii may be modified only after the consent of the Commissioner by written modification of Trading Agreement and Order No. 8243. [Connecticut Trading Agreement and Order No. 8243]
- e. Prior to May 1, 2007 the permittee shall comply during operation on No. 6 fuel oil with an enforceable maximum full load emission rate limit ("FLER") of 0.4 lbs of NO<sub>x</sub> per MMBTU of heat input, averaged on a 24-hour basis. [Connecticut Trading Agreement and Order No. 8243]
- f. Noncompliance with an established FLER shall subject the permittee to make restitution by matching

the quantity of emissions ("true up") caused by the exceedance plus a 100% premium. The true up in tons of DERCs shall be equal to the FLER exceedance in lbs/MMBTU, multiplied by the total heat input during the period of noncompliance divided by 2000 lbs/ton. If the period of noncompliance is not known, the time period from the completion of the last/previous Department witnessed emission test through the date the FLER compliance is achieved as approved by the Commissioner shall be used. [Connecticut Trading Agreement and Order No. 8243]

#### 2. Record Keeping Requirements

i. Pollutant or Process Parameter: Opacity

The permittee shall maintain records of the dates, times, and places of visible emissions observations, persons performing the observations, test methods used, the operating conditions at the time of observation, and the results of such observation. [RCSA Section 22a-174-4(c)(1)]

- ii. Pollutant or Process Parameter: TSP
  - a. The permittee shall keep monthly and annual records of all fuel used. [RCSA Section 22a-174-4(c)(1)]
  - b. The permittee shall maintain monthly and annual records of actual TSP emissions. The monthly TSP emissions shall be calculated using emission factors obtained by stack testing or from the latest version of AP-42 and the fuel usage. Annual TSP emissions shall be calculated each calendar month by adding the current calendar month's TSP emissions to those of the previous eleven (11) months. [RCSA Section 22a-174-4(c)(1)]
- iii. Pollutant or Process Parameter: SO<sub>x</sub>

The permittee shall maintain monthly and annual records of actual  $SO_x$  emissions. The monthly  $SO_x$  emissions shall be calculated using emission factor obtained by stack testing and the fuel records. Annual  $SO_x$  emissions shall be calculated each calendar month by adding the current calendar month's  $SO_x$  emissions to those of the previous eleven months. [RCSA Section 22a-174-4(c)(1)]

- iv. Pollutant or Process Parameter: NO<sub>x</sub>
  - a. The permittee shall keep records of all tune-ups, repairs, replacement of parts and other maintenance done on the unit. [RCS A Section 22a-174-22(l)(1)(D)]
  - b. The permittee shall keep copies of all documents on file submitted to the Commissioner pursuant to RCSA Section 22a-174-22. [RCSA Section 22a-174-22(l)(1)(E)]
  - c. The permittee shall keep procedures for calculating  $NO_x$  emission rates. [RCSA Section 22a-174-22(l)(1)(G)]
  - d. The permittee shall keep records of the dates, times, and places of all emission testing done on this unit, the persons performing the measurements, the testing methods used, the operating conditions at the time of testing, and the results of such testing. [RCSA Section 22a-174-22(l)(1)(H)
- v. Pollutant or Process Parameter: No. 2 and Residual Fuel Oils
  - a. The permittee shall keep records of monthly and annual fuel consumption for each fuel. Annual fuel consumption shall be based on consecutive twelve (12) month periods and shall be determined by adding (for each fuel) the current month's fuel usage to that of the previous eleven (11) months. [CP/OP No. 117-0031; Connecticut Trading Agreement and Order No. 8243]
  - b. The permittee shall maintain records of fuel merchant certifications from the fuel supplier certifying the type of fuel, the weight percent of sulfur in the fuel, name of the fuel supplier, and the method used to determine the sulfur content of fuel for each shipment. [RCSA Section 22a-174-19(a)(5)]

- vi. Pollutant or Process Parameter: NO<sub>x</sub> DERCs
  - a. The permittee shall document and record monthly consumption of fuel and DERCs EMU2. [Connecticut Trading Agreement and Order No. 8243]
  - b. The permittee shall maintain documentation to attest to the fact that DERCs used during the ozone season were generated during the ozone season. The ozone season is from May 1 through September 30 in any calendar year. Generator certification of this fact shall be sufficient [Connecticut Trading Agreement and Order No. 8243]
  - c. The permittee shall keep monthly and annual records of all fuels used. [RCSA Section 22a-174-22(1)(1)(C)]

## 3. Reporting Requirements

- i. Pollutant or Process Parameter: NO<sub>x</sub>
  - a. The permittee shall include with its annual emissions report to the Commissioner, the number of DERCs used during ozone and non-ozone seasons, for the previous calendar year. [Connecticut Trading Agreement and Order No. 8243]
  - b. The permittee shall provide all the NO<sub>x</sub> records specified in Section IV.B.2.iv of this Title V Operating Permit to the Commissioner within thirty (30) days of receipt of a written request from the Commissioner. [RCSA Section 22a-174-4(c)(1)]
- ii. Pollutant or Process Parameter: No. 2 and Residual Fuel Oils

The permittee shall provide all the fuel records specified in Section IV.B.2.v of this Title V Operating Permit to the Commissioner within thirty (30) days of receipt of a written request from the Commissioner. [RCSA Section 22a-174-4(c)(1)]

- iii. Pollutant or Process Parameter: NO<sub>x</sub> DERCs
  - a. No later than March 1, of each year Trading Agreement and Order 8243 is in effect, the permittee shall include with its annual emissions report to the Commissioner, the monthly rate of fuel consumption for the boiler and DERCs used by the boiler for the previous calendar year. [Connecticut Trading Agreement and Order No. 8243]
  - b. The permittee shall provide all the NO<sub>x</sub> records specified in Section IV.B.2.vi of this Title V Operating Permit to the Commissioner within thirty (30) days of receipt of a written request from the Commissioner. [RCSA Section 22a-174-4(c)(1)]

## C. EMISSIONS UNIT 3 - Solar "Spartan" Model #GS350 Gas Turbine Emergency Generator

#### 1. Monitoring and Testing Requirements

i. Pollutant or Process Parameter: Opacity

Opacity shall not exceed those limits stated in Table III.C.1 of this Title V Operating Permit. If required by the Commissioner, the permittee shall, within the time period specified by the Commissioner, measure opacity using 40 CFR 60 Method 9, Appendix. A stack test. [RCSA Section 22a-174-5(e)(2) & Section 33(j)(1)(K) and 40 CFR Section 70.6(a)(3)]

ii. Pollutant or Process Parameter: TSP

Emissions of TSP shall not exceed those limits stated in Table III.C.2 of this Title V Operating Permit. The permittee shall demonstrate compliance by: maintaining good operational practices by following the manufacturers instructions and calculating the lbs/MMBTU rate in Table III.C.2, of this Title V Operating Permit by using appropriate emission factors. [RCSA Section 22a-174-33(j)(1)(K) & 40 CFR Section 70.6(a)(3)(i)(B)].

iii. Pollutant or Process Parameter: Hours of Operation

Hours of operation shall not exceed those limits stated in Table III.C.3 of this Title V Operating Permit. The permittee shall monitor the hours of operation of the emergency generator using log entries of the hours run each day. [RCSA Section 22a-174-3b(e)(3) and Section 22a-174-3b(e)(4)]

iv. Pollutant or Process Parameter: Sulfur Content

The permittee shall monitor the sulfur content of the fuel used by the emergency generator, using either a fuel certification for a delivery of nongaseous fuel from a bulk petroleum provider or a copy of a current contract with the fuel supplier supplying the fuel used by the equipment that includes the applicable sulfur content of nongaseous fuel as a condition of each shipment. [RCSA Section 22a-174-3b(h)]

#### 2. Record Keeping Requirements

i. Pollutant or Process Parameter: Opacity

The permittee shall maintain records of the dates, times, and places of visible emissions observations, persons performing the observations, test methods used, the operating conditions at the time of observation, and the results of such observation. [RCSA Section 22a-174-4(c)(1)]

ii. Pollutant or Process Parameter: TSP

The permittee shall maintain records of generator maintenance to verify that the generator is being properly maintained. [RCSA Section 22a-174-3b(e)(3)]

#### iii. Pollutant or Process Parameter: Hours of Operation

- a. The permittee shall maintain records of the information necessary for the Commissioner to determine compliance with the requirements of Table III.C.3. Information sufficient to make such determination may include the information specified in Table III.C.3. All records made to determine compliance with the requirements of this section shall be made available to the Commissioner to inspect and copy upon request; and be maintained for five (5) years from the date such record is created. [RCSA Section 22a-174-3b(e)(3)]
- b. The permittee shall make and maintain records of the hours of operation for each month and each twelve (12) month rolling aggregate. [RCSA Section 22a-174-3b(e)(4)]

#### iv. Pollutant or Process Parameter: Sulfur Content

- a. The permittee shall maintain records of the information necessary for the Commissioner to determine compliance with the requirements of Table III.C.4. Information sufficient to make such determination may include the information specified in Table III.C.4. All records made to determine compliance with the requirements of this section shall be made available to the Commissioner to inspect and copy upon request; and maintained for five years from the date such record is created. [RCSA Section 22a-174-3b(e)(3)]
- b. The permittee shall monitor the sulfur content of the emergency generator, using either a fuel certification for a delivery of nongaseous fuel from a bulk petroleum provider or a copy of a current contract with the fuel supplier supplying the fuel used by the equipment that includes the applicable sulfur content of nongaseous fuel as a condition of each shipment. [RCSA Section 22a-174-3b(h)]

#### D. Premises-Wide Monitoring Recording & Reporting Requirements

#### **Premises-Wide Monitoring Requirements:**

• In accordance with Section VIII.E of this Title V Operating Permit, the permittee shall submit to the Commissioner on a semi-annual basis (once every six months) a written monitoring report [RCSA Section 22a-174-33(o)(1) & 40 CFR Section 70.6(a)(3)(iii)].

#### **Premises-Wide Recording & Reporting Requirements:** The permittee shall:

- Shall verify compliance with the annual emission rates stated in Table III.A C of this Title V Operating Permit by calculating emissions no later than fifteen (15) days after the end of each month;
- Maintain records, in accordance with Section VIII.F of this Title V Operating Permit, of all required monitoring data and supporting information for a minimum of five years commencing on the date such records were created and kept on site at the premises [RCSA Section 22a-174-33(o)(2) & 40 CFR Section 70.6(a)(3)(ii)];
- Have certified by a responsible official, in accordance with Section VIII.B and VIII.H of this Title V Operating Permit, any report or document required by this Title V Operating Permit and any other information submitted to the Commissioner or Administrator [40 CFR Section 70.6(c)(1)];
- Provide all records to the Commissioner within thirty (30) days of receipt of a written request from the Commissioner or such sooner time as the Commissioner may require, except as may be required under Section VIII.D of this Title V Operating Permit, [RCSA Section 22a-174-4(c)(1)]; and
- Record annual emissions and submit such annual emissions inventory statements to the Commissioner once per year [RCSA Section 22a-174-4(c)(1), Connecticut State Implementation Plan (CT SIP) for Air Quality Emission Statements].

## **Section V: Compliance Schedule**

## NOT APPLICABLE

|                | TABLE VI: COMPLIANCE SCHEDULE |  |  |   |  |
|----------------|-------------------------------|--|--|---|--|
| Emissions unit | Applicable<br>Regulations     | Steps required for achieving compliance (Milestones) | Date by which each<br>step is to be<br>completed | Dates for monitoring, record keeping, and reporting |  |
| N/A            |                               |  |  |   |  |
|                |                               |  |  |   |  |
|                |                               |  |  |   |  |
|                |                               |  |  |   |  |
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#### Section VI: State Enforceable Terms and Conditions

Only the Commissioner of the Department of Environmental Protection has the authority to enforce the terms, conditions and limitations contained in this section.

- **A.** This permit does not relieve the permittee of the responsibility to conduct, maintain and operate the emissions units in compliance with all applicable requirements of any other Bureau of the Department of Environmental Protection or any federal, local or other state agency. Nothing in this permit shall relieve the permittee of other obligations under applicable federal, state and local law.
- **B.** Nothing in this permit shall affect the Commissioner's authority to institute any proceeding or take any other action to prevent or abate violations of law, prevent or abate pollution, investigate air pollution, recover costs and natural resource damages, and to impose penalties for violations of law, including but not limited to violations of this or any other permit issued to the permittee by the Commissioner.
- C. Odors: The permittee shall not cause or permit the emission of any substance or combination of substances which creates or contributes to an odor beyond the property boundary of the premises as set forth in RCSA Section 22a-174-23.
- **D.** Noise: The permittee shall operate in compliance with the regulations for the control of noise as set forth in RCSA Sections 22a-69-1 through 22a-69-7.4, inclusive.
- **E.** Hazardous Air Pollutants (HAPs): The permittee shall operate in compliance with the regulations for the control of HAPs as set forth in RCSA Section 22a-174-29.
- **F.** Open Burning: The permittee is prohibited from conducting open burning, except as may be allowed by CGS Section 22a-174(f).
- **G.** Fuel Sulfur Content: The permittee shall not use No. 2 heating oil that exceeds three-tenths of one percent sulfur by weight as set forth in CGS Section 16a-21a.
- **H.** Reporting of emissions of greenhouse gases: In accordance with CGS Section 22a-200b(b), not later than April 15, 2006, and annually thereafter, the owner or operator of any facility that is required to report air emissions data to the Department of Environmental Protection pursuant to Title V of the federal Clean Air Act and that has stationary emissions sources that emit greenhouse gases shall report to the regional registry direct stack emissions of greenhouse gases from such sources. The owner or operator shall report all greenhouse gas emissions in a type and format that the regional registry can accommodate.

#### **Section VII: Permit Shield**

#### NO PERMIT SHIELD HAS BEEN GRANTED.

In accordance with RCSA Section 22a-174-33(k), a permittee complying with the conditions of this Title V Operating Permit shall be deemed in compliance with any applicable requirements identified in Table VII below as of the date of issuance. Also, in accordance with RCSA Section 22a-174-33(k), a permittee complying with the conditions of this Title V Operating Permit shall be deemed exempt from any non-applicable requirements identified below as of the date of issuance.

This Title V Operating Permit shall not alter or affect the following:

- **A.** the provisions of Section 303 of the Clean Air Act, including the authority of the Administrator under the Act;
- **B.** the liability of an owner or operator of a Title V source for any violation of applicable requirements prior to or at the effective date of a Title V Operating Permit;
- C. the applicable requirements of the acid rain program under 40 CFR Part 72; and
- **D.** the ability of the Administrator or Commissioner to obtain information from the owner or operator of a Title V source.

| TABLE VII: PERMIT SHIELD |                    |   |                                  |                |  |
|--------------------------|--------------------|---|----------------------------------|----------------|--|
| Regulated<br>Pollutants  | Emissions<br>Units | Applicable Requirement or Non-Applicable Requirement Descriptions | Applicable Regulatory References | *Applicability |  |
| N/A                      |                    |   |                                  |                |  |
|                          |                    |   |                                  |                |  |
|                          |                    |   |                                  |                |  |
|                          |                    |   |                                  |                |  |

 $<sup>{\</sup>bf *For\ Applicability, use\ AR\ to\ indicate\ Applicable\ Requirement\ and\ NR\ for\ Non-\ Applicable\ Requirement}$ 

The Administrator of the United States Environmental Protection Agency and the Commissioner of Environmental Protection have the authority to enforce the terms and conditions contained in these sections.

#### A. SUBMITTALS TO THE COMMISSIONER & ADMINISTRATOR

The date of submission to the Commissioner of any document required by this Title V Operating Permit shall be the date such document is received by the Commissioner. The date of any notice by the Commissioner under this Title V Operating Permit, including, but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is delivered or the date three days after it is mailed by the Commissioner, whichever is earlier. Except as otherwise specified in this Title V Operating Permit, the word "day" means calendar day. Any document or action which is required by this Title V Operating Permit to be submitted or performed by a date which falls on a Saturday, Sunday or legal holiday shall be submitted or performed by the next business day thereafter.

Any document required to be submitted to the Commissioner under this Title V Operating Permit shall, unless otherwise specified in writing by the Commissioner, be directed to: Office of the Assistant Director; Compliance & Field Operations Division; Bureau of Air Management; Department of Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.

Any submittal to the Administrator of the U. S. Environmental Protection Agency shall be in a computer-readable format and addressed to: Director, Air Compliance Program; Attn: Air Compliance Clerk; Office of Environmental Stewardship; US EPA, Region 1;One Congress Street; Suite 1100 (SEA); Boston, MA 02114-2023.

#### **B. CERTIFICATIONS** [RCSA Section 22a-174-33(b)]

In accordance with RCSA Section 22a-174-33(b), any report or other document required by this Title V Operating Permit and any other information submitted to the Commissioner or Administrator shall be signed by an individual described in RCSA Section 22a-174-2a(a), or by a duly authorized representative of such individual. Any individual signing any document pursuant to RCSA Section 22a-174-33(b) shall examine and be familiar with the information submitted in the document and all attachments thereto, and shall make inquiry of those individuals responsible for obtaining the information to determine that the information is true, accurate, and complete, and shall also sign the following certification as provided in RCSA Section 22a-3a-5(a)(2):

"I have personally examined and am familiar with the information submitted in the documents and all attachments thereto and certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in this document or its attachments may be punishable as a criminal offense in accordance with Connecticut General Statutes Section 22a-6, pursuant to Section 53a-157b of the Connecticut General Statutes."

## C. SIGNATORY RESPONSIBILITY [RCSA Section 22a-174-2a(a)]

If an authorization pursuant to RCSA Section 22a-174-33(b)(2) is no longer effective because a different individual or position has assumed the applicable responsibility, a new authorization satisfying the requirements of RCSA Section 22a-174-2a(a)(2) shall be submitted to the Commissioner prior to or together with the submission of any applications, reports, forms, compliance certifications, documents or other information which is signed by an individual or a duly authorized representative of such individual pursuant to RCSA Section 22a-174-2a(a)(2).

### **D. ADDITIONAL INFORMATION** [RCSA Section 22a-174-33(j)(1)(X)]

The permittee shall submit any additional information, at the Commissioner's request, within thirty (30) days of the date of the request or such shorter time as is reasonable, including, but not limited to, any information that the Commissioner may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this Title V Operating Permit or to determine compliance with the terms and conditions of this Title V Operating Permit and all applicable statutes and regulations.

In addition, Within fifteen days of the date the permittee becomes aware of a change in any information submitted to the Commissioner under this Title V Operating Permit or of any change in any information contained in the application, or that any such information was inaccurate or misleading or that any relevant information was omitted, the permittee shall submit the changed, corrected, or omitted information to the Commissioner.

#### **E. MONITORING REPORTS** [RCSA Section 22a-174-33(o)(1)]

A permittee, required to perform monitoring pursuant to this Title V Operating Permit, shall submit to the Commissioner, on forms prescribed by the Commissioner, written monitoring reports on January 30 and July 30 of each year or on a more frequent schedule if specified in such Title V Operating Permit. Such monitoring reports shall include the date and description of each deviation from a Title V Operating Permit requirement including, but not limited to:

- 1. Each deviation caused by upset or control equipment deficiencies; and
- 2. Each deviation of a Title V Operating Permit requirement that has been monitored by the monitoring systems required under this Title V Operating Permit, which has occurred since the date of the last monitoring report; and
- 3. Each deviation caused by a failure of the monitoring system to provide reliable data.

## F. PREMISES RECORDS [RCSA Section 22a-174-33(o)(2)]

Unless otherwise required by this Title V Operating Permit, the permittee shall make and keep records of all required monitoring data and supporting information for at least five years from the date such data and information were obtained. The permittee shall make such records available for inspection at the site of the subject source, and shall submit such records to the Commissioner upon request. The following information, in addition to required monitoring data, shall be recorded for each permitted source:

- 1. The type of monitoring or records used to obtain such data, including record keeping;
- 2. The date, place, and time of sampling or measurement;
- 3. The name of the individual who performed the sampling or the measurement and the name of such individual's employer;
- 4. The date(s) on which analyses of such samples or measurements were performed;
- 5. The name and address of the entity that performed the analyses;
- 6. The analytical techniques or methods used for such analyses;

## F. PREMISES RECORDS, continued [RCSA Section 22a-174-33(o)(2)]

- 7. The results of such analyses;
- 8. The operating conditions at the subject source at the time of such sampling or measurement;
- All calibration and maintenance records relating to the instrumentation used in such sampling or measurements, all
  original strip-chart recordings or computer printouts generated by continuous monitoring instrumentation, and
  copies of all reports required by the subject permit.

## **G. PROGRESS REPORTS** [RCSA Section 22a-174-33(q)(1)]

The permittee shall, on January 30 and July 30 of each year, or on a more frequent schedule if specified in this Title V Operating Permit, submit to the Commissioner a progress report on forms prescribed by the Commissioner, and certified in accordance with RCSA Section 22a-174-2a(a)(5). Such report shall describe the permittee's progress in achieving compliance under the compliance plan schedule contained in this Title V Operating Permit. Such progress report shall:

- 1. Identify those obligations under the compliance plan schedule in the Title V Operating Permit which the permittee has met, and the dates on which they were met; and
- 2. Identify those obligations under the compliance plan schedule in this Title V Operating Permit which the permittee has not timely met, explain why they were not timely met, describe all measures taken or to be taken to meet them and identify the date by which the permittee expects to meet them.

Any progress report prepared and submitted pursuant to RCSA Section 22a-174-33(q)(1) shall be simultaneously submitted by the permittee to the Administrator.

## **H. COMPLIANCE CERTIFICATIONS** [RCSA Section 22a-174-33(q)(2)]

The permittee shall, on January 30 of each year, or on a more frequent schedule if specified in this Title V Operating Permit, submit to the Commissioner, a written compliance certification certified in accordance with RCSA Section 22a-174-2a(a)(5) and which includes the information identified in Title 40 CFR 70.6(c)(5)(iii)(A) to (C), inclusive.

Any compliance certification prepared and submitted pursuant to RCSA Section 22a-174-33(q)(2) shall be simultaneously submitted by the permittee to the Administrator.

#### I. PERMIT DEVIATION NOTIFICATIONS [RCSA Section 22a-174-33(p)]

Notwithstanding Section VIII.D of this Title V Operating Permit, the permittee shall notify the Commissioner in writing, on forms prescribed by the Commissioner, of any deviation from an emissions limitation, and shall identify the cause or likely cause of such deviation, all corrective actions and preventive measures taken with respect thereto, and the dates of such actions and measures as follows:

- 1. For any hazardous air pollutant, no later than twenty-four (24) hours after such deviation commenced; and
- 2. For any other regulated air pollutant, no later than ten (10) days after such deviation commenced.

## J. PERMIT RENEWAL [RCSA Section 22a-174-33(j)(1)(B)]

All of the terms and conditions of this Title V Operating Permit shall remain in effect until the renewal Title V Operating Permit is issued or denied provided that a timely renewal application is filed in accordance with RCSA Sections 22a – 174-33(g), -33(h), and -33(i).

#### **K. OPERATE IN COMPLIANCE** [RCSA Section 22a-174-33(j)(1)(C)]

The permittee shall operate the source in compliance with the terms of all applicable administrative regulations, the terms of this Title V Operating Permit, and any other applicable provisions of law. Any noncompliance with this Title V Operating Permit constitutes a violation of the Clean Air Act and Chapter 446c of the Connecticut General Statutes and is grounds for federal and/or state enforcement action; permit termination, revocation, or modification; or denial of a permit renewal application.

## **L. COMPLIANCE WITH PERMIT** [RCSA Section 22a-174-33(j)(1)(G)]

This Title V Operating Permit shall not be deemed to:

- 1. Preclude the creation or use of emission reduction credits or the trading of such credits in accordance with RCSA Sections 22a-174-33(j)(1)(I) and 22a-174-33(j)(1)(P), provided that the Commissioner's prior written approval of the creation, use, or trading is obtained;
- 2. Authorize emissions of an air pollutant so as to exceed levels prohibited under 40 CFR Part 72;
- 3. Authorize the use of allowances pursuant to 40 CFR Parts 72 through 78, inclusive, as a defense to noncompliance with any other applicable requirement; or
- 4. Impose limits on emissions from items or activities specified in subparagraphs (A) and (B) of RCSA Section 22a-22a-174-33(g)(3) unless imposition of such limits is required by an applicable requirement.

#### M. INSPECTION TO DETERMINE COMPLIANCE [RCSA Section 22a-174-33(j)(1)(M)]

The Commissioner may, for the purpose of determining compliance with this Title V Operating Permit and other applicable requirements, enter the premises at reasonable times to inspect any facilities, equipment, practices, or operations regulated or required under this permit; to sample or otherwise monitor substances or parameters; and to review and copy relevant records lawfully required to be maintained at such premises in accordance with this Title V Operating Permit. It shall be grounds for permit revocation should entry, inspection, sampling, or monitoring be denied or effectively denied, or if access to and the copying of relevant records is denied or effectively denied.

#### N. PERMIT AVAILABILITY

The permittee shall have available at the facility at all times a copy of this Title V Operating Permit.

#### O. SEVERABILITY CLAUSE [RCSA Section 22a-174-33(j)(1)(R)]

The provisions of this Title V Operating Permit are severable. If any provision of this Title V Operating Permit or the application of any provision of this permit to any circumstance is held invalid, the remainder of this Title V Operating Permit and the application of such provision to other circumstances shall not be affected.

## P. NEED TO HALT OR REDUCE ACTIVITY [RCSA Section 22a-174-33(j)(1)(T)]

The permittee's need to halt or reduce operations at the Title V source shall not be a defense to noncompliance with this Title V Operating Permit in an enforcement action concerning a violation of the Title V Operating Permit.

#### Q. PERMIT REQUIREMENTS [RCSA Section 22a-174-33(j)(1)(V)]

The filing of an application or of a notification of planned changes or anticipated noncompliance does not stay the permittee's obligation to comply with this Title V Operating Permit.

## **R. PROPERTY RIGHTS** [RCSA Section 22a-174-33(j)(1)(W)]

This Title V Operating Permit does not convey any property rights or any exclusive privileges. This Title V Operating Permit is subject to, and in no way derogates from any present or future property rights or other rights or powers of the State of Connecticut, and is further subject to any and all public and private rights and to any federal, state or local laws or regulations pertinent to the facility or regulated activity affected thereby, including CGS Section 4-181a(b) and RCSA Section 22a-3a-5(b). This Title V Operating Permit shall neither create nor affect any rights of persons who are not parties to this Title V Operating Permit.

### S. ALTERNATIVE OPERATING SCENARIO RECORDS [RCSA Section 22a-174-33(o)(3)]

The permittee shall, contemporaneously with making a change authorized by this Title V Operating Permit from one alternative operating scenario to another, maintain a record at the premises indicating when changes are made from one operating scenario to another and shall maintain a record of the current alternative operating scenario.

#### T. OPERATIONAL FLEXIBILITY AND OFF-PERMIT CHANGES [RCSA Section 22a-174-33(r)(2)]

The permittee may engage in any action allowed by the Administrator in accordance with 40 CFR 70.4(b)(12)(i) to (iii)(B) inclusive, and 40 CFR 70.4(b)(14)(i) to (iv), inclusive without a Title V non-minor permit modification, minor permit modification or revision and without requesting a Title V non-minor permit modification, minor permit modification or revision provided such action does not:

- 1. Constitute a modification under 40 CFR 60, 61 or 63;
- 2. Exceed emissions allowable under the subject Title V Operating Permit;
- 3. Constitute an action which would subject the Title V Operating Permittee to any standard or other requirement pursuant to 40 CFR 72 to 78, inclusive; or
- 4. Constitute a non-minor permit modification pursuant to RCSA Section 22a-174-2a(d)(4).

At least seven (7) days before initiating an action specified in RCSA Section 22a-174-33(r)(2)(A), the permittee shall notify the Administrator and the Commissioner in writing of such intended action.

## U. INFORMATION FOR NOTIFICATION [RCSA Section 22a-174-33(r)(2)(A)]

Written notification required under subdivisions RCSA Section 22a-174-33(r)(2) shall include a description of each change to be made, the date on which such change will occur, any change in emissions that may occur as a result of such change, any Title V Operating Permit terms and conditions that may be affected by such change, and any applicable requirement that would apply as a result of such change. The permittee shall thereafter maintain a copy of such notice with the Title V Operating Permit. The Commissioner and the permittee shall each attach a copy of such notice to their copy of the Title V Operating Permit.

## V. TRANSFERS [RCSA Section 22a-174-2a(g)]

No person other than the permittee shall act or refrain from acting under the authority of this Title V Operating Permit unless this Title V Operating Permit has been transferred to another person in accordance with CGS Section 22a-6o.

The proposed transferor and transferee of a Title V Operating Permit shall submit to the Commissioner a request for a permit transfer on a form provided by the Commissioner. A request for a permit transfer shall be accompanied by any fees required by any applicable provision of the general statutes or regulations adopted thereunder. The Commissioner may also require the proposed transferee to submit with any such request, the information identified in CGS Section 22a-6m.

### W. REVOCATION [RCSA Section 22a-174-2a(h)]

The Commissioner may revoke this Title V Operating Permit on his own initiative or on the request of the permittee or any other person, in accordance with CGS Section 4-182c, RCSA Section 22a-3a-5(d), and any other applicable law. Any such request shall be in writing and contain facts and reasons supporting the request. The permittee requesting revocation of this Title V Operating Permit shall state the requested date of revocation and provide the Commissioner with satisfactory evidence that the emissions authorized by this Title V Operating Permit have been permanently eliminated.

Pursuant to the Clean Air Act, the Administrator has the power to revoke this Title V Operating Permit. Pursuant to the Clean Air Act, the Administrator also has the power to reissue this Title V Operating Permit if the Administrator has determined that the Commissioner failed to act in a timely manner on a permit renewal application.

This Title V Operating Permit may be modified, revoked, reopened, reissued, or suspended by the Commissioner, or the Administrator in accordance with RCSA Section 22a-174-33(r), CGS Section 22a-174c of Section 22a-3a-5(d).

## **X. REOPENING FOR CAUSE** [RCSA Section 22a-174-33(s)]

This Title V Operating Permit may be reopened by the Commissioner, or the Administrator in accordance with RCSA Section 22a-174-33(s).

#### Y. CREDIBLE EVIDENCE

Notwithstanding any other provision of this Title V Operating Permit, for the purpose of determining compliance or establishing whether a permittee has violated or is in violation of any Title V Operating Permit condition, nothing in this Title V Operating Permit shall preclude the use, including the exclusive use, of any credible evidence or information.